PERENNIAL PRESS



THE CLASSIC SCI-FI COLLECTION

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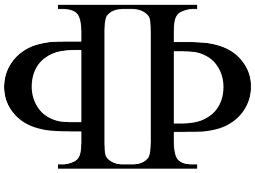
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ANTHEM



by Ayn Rand

PART ONE

It is a sin to write this. It is a sin to think words no others think and to put them down upon a paper no others are to see. It is base and evil. It is as if we were speaking alone to no ears but our own. And we know well that there is no transgression blacker than to do or think alone. We have broken the laws. The laws say that men may not write unless the Council of Vocations bid them so. May we be forgiven!

But this is not the only sin upon us. We have committed a greater crime, and for this crime there is no name. What punishment awaits us if it be discovered we know not, for no such crime has come in the memory of men and there are no laws to provide for it.

It is dark here. The flame of the candle stands still in the air. Nothing moves in this tunnel save our hand on the paper. We are alone here under the earth. It is a fearful word, alone. The laws say that none among men may be alone, ever and at any time, for this is the great transgression and the root of all evil. But we have broken many laws. And now there is nothing here save our one body, and it is strange to see only two legs stretched on the ground, and on the wall before us the shadow of our one head.

The walls are cracked and water runs upon them in thin threads without sound, black and glistening as blood. We stole the candle from the larder of the Home of the Street Sweepers. We shall be sentenced to ten years in the Palace of Corrective Detention if it be discovered. But this matters not. It matters only that the light is precious and we should not waste it to write when we need it for that work which is our crime. Nothing matters save the work, our secret, our evil, our precious work. Still, we must also write, for—may the Council have mercy upon us!—we wish to speak for once to no ears but our own.

Our name is Equality 7-2521, as it is written on the iron bracelet which all men wear on their left wrists with their names upon it. We are twenty-one years old. We are six feet tall, and this is a burden, for there are not many men who are six feet tall. Ever have the Teachers and the Leaders pointed to us and frowned and said:

"There is evil in your bones, Equality 7-2521, for your body has grown beyond the bodies of your brothers." But we cannot change our bones nor our

body.

We were born with a curse. It has always driven us to thoughts which are forbidden. It has always given us wishes which men may not wish. We know that we are evil, but there is no will in us and no power to resist it. This is our wonder and our secret fear, that we know and do not resist.

We strive to be like all our brother men, for all men must be alike. Over the portals of the Palace of the World Council, there are words cut in the marble, which we repeat to ourselves whenever we are tempted:

"WE ARE ONE IN ALL AND ALL IN ONE.
THERE ARE NO MEN BUT ONLY THE GREAT WE,
ONE, INDIVISIBLE AND FOREVER."

We repeat this to ourselves, but it helps us not.

These words were cut long ago. There is green mould in the grooves of the letters and yellow streaks on the marble, which come from more years than men could count. And these words are the truth, for they are written on the Palace of the World Council, and the World Council is the body of all truth. Thus has it been ever since the Great Rebirth, and farther back than that no memory can reach.

But we must never speak of the times before the Great Rebirth, else we are sentenced to three years in the Palace of Corrective Detention. It is only the Old Ones who whisper about it in the evenings, in the Home of the Useless. They whisper many strange things, of the towers which rose to the sky, in those Unmentionable Times, and of the wagons which moved without horses, and of the lights which burned without flame. But those times were evil. And those times passed away, when men saw the Great Truth which is this: that all men are one and that there is no will save the will of all men together.

All men are good and wise. It is only we, Equality 7-2521, we alone who were born with a curse. For we are not like our brothers. And as we look back upon our life, we see that it has ever been thus and that it has brought us step by step to our last, supreme transgression, our crime of crimes hidden here under the ground.

We remember the Home of the Infants where we lived till we were five years old, together with all the children of the City who had been born in the same year. The sleeping halls there were white and clean and bare of all things

save one hundred beds. We were just like all our brothers then, save for the one transgression: we fought with our brothers. There are few offenses blacker than to fight with our brothers, at any age and for any cause whatsoever. The Council of the Home told us so, and of all the children of that year, we were locked in the cellar most often.

When we were five years old, we were sent to the Home of the Students, where there are ten wards, for our ten years of learning. Men must learn till they reach their fifteenth year. Then they go to work. In the Home of the Students we arose when the big bell rang in the tower and we went to our beds when it rang again. Before we removed our garments, we stood in the great sleeping hall, and we raised our right arms, and we said all together with the three Teachers at the head:

"We are nothing. Mankind is all. By the grace of our brothers are we allowed our lives. We exist through, by and for our brothers who are the State. Amen."

Then we slept. The sleeping halls were white and clean and bare of all things save one hundred beds.

We, Equality 7-2521, were not happy in those years in the Home of the Students. It was not that the learning was too hard for us. It was that the learning was too easy. This is a great sin, to be born with a head which is too quick. It is not good to be different from our brothers, but it is evil to be superior to them. The Teachers told us so, and they frowned when they looked upon us.

So we fought against this curse. We tried to forget our lessons, but we always remembered. We tried not to understand what the Teachers taught, but we always understood it before the Teachers had spoken. We looked upon Union 5-3992, who were a pale boy with only half a brain, and we tried to say and do as they did, that we might be like them, like Union 5-3992, but somehow the Teachers knew that we were not. And we were lashed more often than all the other children.

The Teachers were just, for they had been appointed by the Councils, and the Councils are the voice of all justice, for they are the voice of all men. And if sometimes, in the secret darkness of our heart, we regret that which befell us on our fifteenth birthday, we know that it was through our own guilt. We had

broken a law, for we had not paid heed to the words of our Teachers. The Teachers had said to us all:

"Dare not choose in your minds the work you would like to do when you leave the Home of the Students. You shall do that which the Council of Vocations shall prescribe for you. For the Council of Vocations knows in its great wisdom where you are needed by your brother men, better than you can know it in your unworthy little minds. And if you are not needed by your brother man, there is no reason for you to burden the earth with your bodies."

We knew this well, in the years of our childhood, but our curse broke our will. We were guilty and we confess it here: we were guilty of the great Transgression of Preference. We preferred some work and some lessons to the others. We did not listen well to the history of all the Councils elected since the Great Rebirth. But we loved the Science of Things. We wished to know. We wished to know about all the things which make the earth around us. We asked so many questions that the Teachers forbade it.

We think that there are mysteries in the sky and under the water and in the plants which grow. But the Council of Scholars has said that there are no mysteries, and the Council of Scholars knows all things. And we learned much from our Teachers. We learned that the earth is flat and that the sun revolves around it, which causes the day and the night. We learned the names of all the winds which blow over the seas and push the sails of our great ships. We learned how to bleed men to cure them of all ailments.

We loved the Science of Things. And in the darkness, in the secret hour, when we awoke in the night and there were no brothers around us, but only their shapes in the beds and their snores, we closed our eyes, and we held our lips shut, and we stopped our breath, that no shudder might let our brothers see or hear or guess, and we thought that we wished to be sent to the Home of the Scholars when our time would come.

All the great modern inventions come from the Home of the Scholars, such as the newest one, which was found only a hundred years ago, of how to make candles from wax and string; also, how to make glass, which is put in our windows to protect us from the rain. To find these things, the Scholars must study the earth and learn from the rivers, from the sands, from the winds and the rocks. And if we went to the Home of the Scholars, we could learn from

these also. We could ask questions of these, for they do not forbid questions.

And questions give us no rest. We know not why our curse makes us seek we know not what, ever and ever. But we cannot resist it. It whispers to us that there are great things on this earth of ours, and that we can know them if we try, and that we must know them. We ask, why must we know, but it has no answer to give us. We must know that we may know.

So we wished to be sent to the Home of the Scholars. We wished it so much that our hands trembled under the blankets in the night, and we bit our arm to stop that other pain which we could not endure. It was evil and we dared not face our brothers in the morning. For men may wish nothing for themselves. And we were punished when the Council of Vocations came to give us our life Mandates which tell those who reach their fifteenth year what their work is to be for the rest of their days.

The Council of Vocations came on the first day of spring, and they sat in the great hall. And we who were fifteen and all the Teachers came into the great hall. And the Council of Vocations sat on a high dais, and they had but two words to speak to each of the Students. They called the Students' names, and when the Students stepped before them, one after another, the Council said: "Carpenter" or "Doctor" or "Cook" or "Leader." Then each Student raised their right arm and said: "The will of our brothers be done."

Now if the Council has said "Carpenter" or "Cook," the Students so assigned go to work and they do not study any further. But if the Council has said "Leader," then those Students go into the Home of the Leaders, which is the greatest house in the City, for it has three stories. And there they study for many years, so that they may become candidates and be elected to the City Council and the State Council and the World Council—by a free and general vote of all men. But we wished not to be a Leader, even though it is a great honor. We wished to be a Scholar.

So we awaited our turn in the great hall and then we heard the Council of Vocations call our name: "Equality 7-2521." We walked to the dais, and our legs did not tremble, and we looked up at the Council. There were five members of the Council, three of the male gender and two of the female. Their hair was white and their faces were cracked as the clay of a dry river bed. They were old. They seemed older than the marble of the Temple of the World Council. They

sat before us and they did not move. And we saw no breath to stir the folds of their white togas. But we knew that they were alive, for a finger of the hand of the oldest rose, pointed to us, and fell down again. This was the only thing which moved, for the lips of the oldest did not move as they said: "Street Sweeper."

We felt the cords of our neck grow tight as our head rose higher to look upon the faces of the Council, and we were happy. We knew we had been guilty, but now we had a way to atone for it. We would accept our Life Mandate, and we would work for our brothers, gladly and willingly, and we would erase our sin against them, which they did not know, but we knew. So we were happy, and proud of ourselves and of our victory over ourselves. We raised our right arm and we spoke, and our voice was the clearest, the steadiest voice in the hall that day, and we said:

"The will of our brothers be done."

And we looked straight into the eyes of the Council, but their eyes were as cold blue glass buttons.

So we went into the Home of the Street Sweepers. It is a grey house on a narrow street. There is a sundial in its courtyard, by which the Council of the Home can tell the hours of the day and when to ring the bell. When the bell rings, we all arise from our beds. The sky is green and cold in our windows to the east. The shadow on the sundial marks off a half-hour while we dress and eat our breakfast in the dining hall, where there are five long tables with twenty clay plates and twenty clay cups on each table. Then we go to work in the streets of the City, with our brooms and our rakes. In five hours, when the sun is high, we return to the Home and we eat our midday meal, for which one-half hour is allowed. Then we go to work again. In five hours, the shadows are blue on the pavements, and the sky is blue with a deep brightness which is not bright. We come back to have our dinner, which lasts one hour. Then the bell rings and we walk in a straight column to one of the City Halls, for the Social Meeting. Other columns of men arrive from the Homes of the different Trades. The candles are lit, and the Councils of the different Homes stand in a pulpit, and they speak to us of our duties and of our brother men. Then visiting Leaders mount the pulpit and they read to us the speeches which were made in the City Council that day, for the City Council represents all men and all men must

know. Then we sing hymns, the Hymn of Brotherhood, and the Hymn of Equality, and the Hymn of the Collective Spirit. The sky is a soggy purple when we return to the Home. Then the bell rings and we walk in a straight column to the City Theatre for three hours of Social Recreation. There a play is shown upon the stage, with two great choruses from the Home of the Actors, which speak and answer all together, in two great voices. The plays are about toil and how good it is. Then we walk back to the Home in a straight column. The sky is like a black sieve pierced by silver drops that tremble, ready to burst through. The moths beat against the street lanterns. We go to our beds and we sleep, till the bell rings again. The sleeping halls are white and clean and bare of all things save one hundred beds.

Thus have we lived each day of four years, until two springs ago when our crime happened. Thus must all men live until they are forty. At forty, they are worn out. At forty, they are sent to the Home of the Useless, where the Old Ones live. The Old Ones do not work, for the State takes care of them. They sit in the sun in summer and they sit by the fire in winter. They do not speak often, for they are weary. The Old Ones know that they are soon to die. When a miracle happens and some live to be forty-five, they are the Ancient Ones, and the children stare at them when passing by the Home of the Useless. Such is to be our life, as that of all our brothers and of the brothers who came before us.

Such would have been our life, had we not committed our crime which changed all things for us. And it was our curse which drove us to our crime. We had been a good Street Sweeper and like all our brother Street Sweepers, save for our cursed wish to know. We looked too long at the stars at night, and at the trees and the earth. And when we cleaned the yard of the Home of the Scholars, we gathered the glass vials, the pieces of metal, the dried bones which they had discarded. We wished to keep these things and to study them, but we had no place to hide them. So we carried them to the City Cesspool. And then we made the discovery.

It was on a day of the spring before last. We Street Sweepers work in brigades of three, and we were with Union 5-3992, they of the half-brain, and with International 4-8818. Now Union 5-3992 are a sickly lad and sometimes they are stricken with convulsions, when their mouth froths and their eyes turn white. But International 4-8818 are different. They are a tall, strong youth and

their eyes are like fireflies, for there is laughter in their eyes. We cannot look upon International 4-8818 and not smile in answer. For this they were not liked in the Home of the Students, as it is not proper to smile without reason. And also they were not liked because they took pieces of coal and they drew pictures upon the walls, and they were pictures which made men laugh. But it is only our brothers in the Home of the Artists who are permitted to draw pictures, so International 4-8818 were sent to the Home of the Street Sweepers, like ourselves.

International 4-8818 and we are friends. This is an evil thing to say, for it is a transgression, the great Transgression of Preference, to love any among men better than the others, since we must love all men and all men are our friends. So International 4-8818 and we have never spoken of it. But we know. We know, when we look into each other's eyes. And when we look thus without words, we both know other things also, strange things for which there are no words, and these things frighten us.

So on that day of the spring before last, Union 5-3992 were stricken with convulsions on the edge of the City, near the City Theatre. We left them to lie in the shade of the Theatre tent and we went with International 4-8818 to finish our work. We came together to the great ravine behind the Theatre. It is empty save for trees and weeds. Beyond the ravine there is a plain, and beyond the plain there lies the Uncharted Forest, about which men must not think.

We were gathering the papers and the rags which the wind had blown from the Theatre, when we saw an iron bar among the weeds. It was old and rusted by many rains. We pulled with all our strength, but we could not move it. So we called International 4-8818, and together we scraped the earth around the bar. Of a sudden the earth fell in before us, and we saw an old iron grill over a black hole.

International 4-8818 stepped back. But we pulled at the grill and it gave way. And then we saw iron rings as steps leading down a shaft into a darkness without bottom.

"We shall go down," we said to International 4-8818.

"It is forbidden," they answered.

We said: "The Council does not know of this hole, so it cannot be forbidden."

And they answered: "Since the Council does not know of this hole, there can be no law permitting to enter it. And everything which is not permitted by law is forbidden."

But we said: "We shall go, none the less."

They were frightened, but they stood by and watched us go.

We hung on the iron rings with our hands and our feet. We could see nothing below us. And above us the hole open upon the sky grew smaller and smaller, till it came to be the size of a button. But still we went down. Then our foot touched the ground. We rubbed our eyes, for we could not see. Then our eyes became used to the darkness, but we could not believe what we saw.

No men known to us could have built this place, nor the men known to our brothers who lived before us, and yet it was built by men. It was a great tunnel. Its walls were hard and smooth to the touch; it felt like stone, but it was not stone. On the ground there were long thin tracks of iron, but it was not iron; it felt smooth and cold as glass. We knelt, and we crawled forward, our hand groping along the iron line to see where it would lead. But there was an unbroken night ahead. Only the iron tracks glowed through it, straight and white, calling us to follow. But we could not follow, for we were losing the puddle of light behind us. So we turned and we crawled back, our hand on the iron line. And our heart beat in our fingertips, without reason. And then we knew.

We knew suddenly that this place was left from the Unmentionable Times. So it was true, and those Times had been, and all the wonders of those Times. Hundreds upon hundreds of years ago men knew secrets which we have lost. And we thought: "This is a foul place. They are damned who touch the things of the Unmentionable Times." But our hand which followed the track, as we crawled, clung to the iron as if it would not leave it, as if the skin of our hand were thirsty and begging of the metal some secret fluid beating in its coldness.

We returned to the earth. International 4-8818 looked upon us and stepped back.

"Equality 7-2521," they said, "your face is white."

But we could not speak and we stood looking upon them.

They backed away, as if they dared not touch us. Then they smiled, but it was not a gay smile; it was lost and pleading. But still we could not speak. Then

they said:

"We shall report our find to the City Council and both of us will be rewarded."

And then we spoke. Our voice was hard and there was no mercy in our voice. We said:

"We shall not report our find to the City Council. We shall not report it to any men."

They raised their hands to their ears, for never had they heard such words as these.

"International 4-8818," we asked, "will you report us to the Council and see us lashed to death before your eyes?"

They stood straight all of a sudden and they answered: "Rather would we die."

"Then," we said, "keep silent. This place is ours. This place belongs to us, Equality 7-2521, and to no other men on earth. And if ever we surrender it, we shall surrender our life with it also."

Then we saw that the eyes of International 4-8818 were full to the lids with tears they dared not drop. They whispered, and their voice trembled, so that their words lost all shape:

"The will of the Council is above all things, for it is the will of our brothers, which is holy. But if you wish it so, we shall obey you. Rather shall we be evil with you than good with all our brothers. May the Council have mercy upon both our hearts!"

Then we walked away together and back to the Home of the Street Sweepers. And we walked in silence.

Thus did it come to pass that each night, when the stars are high and the Street Sweepers sit in the City Theatre, we, Equality 7-2521, steal out and run through the darkness to our place. It is easy to leave the Theatre; when the candles are blown out and the Actors come onto the stage, no eyes can see us as we crawl under our seat and under the cloth of the tent. Later, it is easy to steal through the shadows and fall in line next to International 4-8818, as the column leaves the Theatre. It is dark in the streets and there are no men about, for no men may walk through the City when they have no mission to walk there. Each night, we run to the ravine, and we remove the stones which we have piled upon

the iron grill to hide it from the men. Each night, for three hours, we are under the earth, alone.

We have stolen candles from the Home of the Street Sweepers, we have stolen flints and knives and paper, and we have brought them to this place. We have stolen glass vials and powders and acids from the Home of the Scholars. Now we sit in the tunnel for three hours each night and we study. We melt strange metals, and we mix acids, and we cut open the bodies of the animals which we find in the City Cesspool. We have built an oven of the bricks we gathered in the streets. We burn the wood we find in the ravine. The fire flickers in the oven and blue shadows dance upon the walls, and there is no sound of men to disturb us.

We have stolen manuscripts. This is a great offense. Manuscripts are precious, for our brothers in the Home of the Clerks spend one year to copy one single script in their clear handwriting. Manuscripts are rare and they are kept in the Home of the Scholars. So we sit under the earth and we read the stolen scripts. Two years have passed since we found this place. And in these two years we have learned more than we had learned in the ten years of the Home of the Students.

We have learned things which are not in the scripts. We have solved secrets of which the Scholars have no knowledge. We have come to see how great is the unexplored, and many lifetimes will not bring us to the end of our quest. But we wish no end to our quest. We wish nothing, save to be alone and to learn, and to feel as if with each day our sight were growing sharper than the hawk's and clearer than rock crystal.

Strange are the ways of evil. We are false in the faces of our brothers. We are defying the will of our Councils. We alone, of the thousands who walk this earth, we alone in this hour are doing a work which has no purpose save that we wish to do it. The evil of our crime is not for the human mind to probe. The nature of our punishment, if it be discovered, is not for the human heart to ponder. Never, not in the memory of the Ancient Ones' Ancients, never have men done that which we are doing.

And yet there is no shame in us and no regret. We say to ourselves that we are a wretch and a traitor. But we feel no burden upon our spirit and no fear in our heart. And it seems to us that our spirit is clear as a lake troubled by no

eyes save those of the sun. And in our heart—strange are the ways of evil!—in our heart there is the first peace we have known in twenty years.

PART TWO

Liberty 5-3000... Liberty five-three thousand ... Liberty 5-3000....

We wish to write this name. We wish to speak it, but we dare not speak it above a whisper. For men are forbidden to take notice of women, and women are forbidden to take notice of men. But we think of one among women, they whose name is Liberty 5-3000, and we think of no others. The women who have been assigned to work the soil live in the Homes of the Peasants beyond the City. Where the City ends there is a great road winding off to the north, and we Street Sweepers must keep this road clean to the first milepost. There is a hedge along the road, and beyond the hedge lie the fields. The fields are black and ploughed, and they lie like a great fan before us, with their furrows gathered in some hand beyond the sky, spreading forth from that hand, opening wide apart as they come toward us, like black pleats that sparkle with thin, green spangles. Women work in the fields, and their white tunics in the wind are like the wings of sea-gulls beating over the black soil.

And there it was that we saw Liberty 5-3000 walking along the furrows. Their body was straight and thin as a blade of iron. Their eyes were dark and hard and glowing, with no fear in them, no kindness and no guilt. Their hair was golden as the sun; their hair flew in the wind, shining and wild, as if it defied men to restrain it. They threw seeds from their hand as if they deigned to fling a scornful gift, and the earth was a beggar under their feet.

We stood still; for the first time did we know fear, and then pain. And we stood still that we might not spill this pain more precious than pleasure.

Then we heard a voice from the others call their name: "Liberty 5-3000," and they turned and walked back. Thus we learned their name, and we stood watching them go, till their white tunic was lost in the blue mist.

And the following day, as we came to the northern road, we kept our eyes upon Liberty 5-3000 in the field. And each day thereafter we knew the illness of waiting for our hour on the northern road. And there we looked at Liberty 5-3000 each day. We know not whether they looked at us also, but we think they did. Then one day they came close to the hedge, and suddenly they turned to us. They turned in a whirl and the movement of their body stopped, as if slashed off, as suddenly as it had started. They stood still as a stone, and they looked

straight upon us, straight into our eyes. There was no smile on their face, and no welcome. But their face was taut, and their eyes were dark. Then they turned as swiftly, and they walked away from us.

But the following day, when we came to the road, they smiled. They smiled to us and for us. And we smiled in answer. Their head fell back, and their arms fell, as if their arms and their thin white neck were stricken suddenly with a great lassitude. They were not looking upon us, but upon the sky. Then they glanced at us over their shoulder, as we felt as if a hand had touched our body, slipping softly from our lips to our feet.

Every morning thereafter, we greeted each other with our eyes. We dared not speak. It is a transgression to speak to men of other Trades, save in groups at the Social Meetings. But once, standing at the hedge, we raised our hand to our forehead and then moved it slowly, palm down, toward Liberty 5-3000. Had the others seen it, they could have guessed nothing, for it looked only as if we were shading our eyes from the sun. But Liberty 5-3000 saw it and understood. They raised their hand to their forehead and moved it as we had. Thus, each day, we greet Liberty 5-3000, and they answer, and no men can suspect.

We do not wonder at this new sin of ours. It is our second Transgression of Preference, for we do not think of all our brothers, as we must, but only of one, and their name is Liberty 5-3000. We do not know why we think of them. We do not know why, when we think of them, we feel all of a sudden that the earth is good and that it is not a burden to live. We do not think of them as Liberty 5-3000 any longer. We have given them a name in our thoughts. We call them the Golden One. But it is a sin to give men names which distinguish them from other men. Yet we call them the Golden One, for they are not like the others. The Golden One are not like the others.

And we take no heed of the law which says that men may not think of women, save at the Time of Mating. This is the time each spring when all the men older than twenty and all the women older than eighteen are sent for one night to the City Palace of Mating. And each of the men have one of the women assigned to them by the Council of Eugenics. Children are born each winter, but women never see their children and children never know their parents. Twice have we been sent to the Palace of Mating, but it is an ugly and shameful matter, of which we do not like to think.

We had broken so many laws, and today we have broken one more. Today, we spoke to the Golden One.

The other women were far off in the field, when we stopped at the hedge by the side of the road. The Golden One were kneeling alone at the moat which runs through the field. And the drops of water falling from their hands, as they raised the water to their lips, were like sparks of fire in the sun. Then the Golden One saw us, and they did not move, kneeling there, looking at us, and circles of light played upon their white tunic, from the sun on the water of the moat, and one sparkling drop fell from a finger of their hand held as frozen in the air.

Then the Golden One rose and walked to the hedge, as if they had heard a command in our eyes. The two other Street Sweepers of our brigade were a hundred paces away down the road. And we thought that International 4-8818 would not betray us, and Union 5-3992 would not understand. So we looked straight upon the Golden One, and we saw the shadows of their lashes on their white cheeks and the sparks of sun on their lips. And we said:

"You are beautiful, Liberty 5-3000."

Their face did not move and they did not avert their eyes. Only their eyes grew wider, and there was triumph in their eyes, and it was not triumph over us, but over things we could not guess.

Then they asked:

"What is your name?"

"Equality 7-2521," we answered.

"You are not one of our brothers, Equality 7-2521, for we do not wish you to be."

We cannot say what they meant, for there are no words for their meaning, but we know it without words and we knew it then.

"No," we answered, "nor are you one of our sisters."

"If you see us among scores of women, will you look upon us?"

"We shall look upon you, Liberty 5-3000, if we see you among all the women of the earth."

Then they asked:

"Are Street Sweepers sent to different parts of the City or do they always work in the same places?"

"They always work in the same places," we answered, "and no one will take this road away from us."

"Your eyes," they said, "are not like the eyes of any among men."

And suddenly, without cause for the thought which came to us, we felt cold, cold to our stomach.

"How old are you?" we asked.

They understood our thought, for they lowered their eyes for the first time.

"Seventeen," they whispered.

And we sighed, as if a burden had been taken from us, for we had been thinking without reason of the Palace of Mating. And we thought that we would not let the Golden One be sent to the Palace. How to prevent it, how to bar the will of the Councils, we knew not, but we knew suddenly that we would. Only we do not know why such thought came to us, for these ugly matters bear no relation to us and the Golden One. What relation can they bear?

Still, without reason, as we stood there by the hedge, we felt our lips drawn tight with hatred, a sudden hatred for all our brother men. And the Golden One saw it and smiled slowly, and there was in their smile the first sadness we had seen in them. We think that in the wisdom of women the Golden One had understood more than we can understand.

Then three of the sisters in the field appeared, coming toward the road, so the Golden One walked away from us. They took the bag of seeds, and they threw the seeds into the furrows of earth as they walked away. But the seeds flew wildly, for the hand of the Golden One was trembling.

Yet as we walked back to the Home of the Street Sweepers, we felt that we wanted to sing, without reason. So we were reprimanded tonight, in the dining hall, for without knowing it we had begun to sing aloud some tune we had never heard. But it is not proper to sing without reason, save at the Social Meetings.

"We are singing because we are happy," we answered the one of the Home Council who reprimanded us.

"Indeed you are happy," they answered. "How else can men be when they live for their brothers?"

And now, sitting here in our tunnel, we wonder about these words. It is forbidden, not to be happy. For, as it has been explained to us, men are free and the earth belongs to them; and all things on earth belong to all men; and the will

of all men together is good for all; and so all men must be happy.

Yet as we stand at night in the great hall, removing our garments for sleep, we look upon our brothers and we wonder. The heads of our brothers are bowed. The eyes of our brothers are dull, and never do they look one another in the eyes. The shoulders of our brothers are hunched, and their muscles are drawn, as if their bodies were shrinking and wished to shrink out of sight. And a word steals into our mind, as we look upon our brothers, and that word is fear.

There is fear hanging in the air of the sleeping halls, and in the air of the streets. Fear walks through the City, fear without name, without shape. All men feel it and none dare to speak.

We feel it also, when we are in the Home of the Street Sweepers. But here, in our tunnel, we feel it no longer. The air is pure under the ground. There is no odor of men. And these three hours give us strength for our hours above the ground.

Our body is betraying us, for the Council of the Home looks with suspicion upon us. It is not good to feel too much joy nor to be glad that our body lives. For we matter not and it must not matter to us whether we live or die, which is to be as our brothers will it. But we, Equality 7-2521, are glad to be living. If this is a vice, then we wish no virtue.

Yet our brothers are not like us. All is not well with our brothers. There are Fraternity 2-5503, a quiet boy with wise, kind eyes, who cry suddenly, without reason, in the midst of day or night, and their body shakes with sobs they cannot explain. There are Solidarity 9-6347, who are a bright youth, without fear in the day; but they scream in their sleep, and they scream: "Help us! Help us! Help us!" into the night, in a voice which chills our bones, but the Doctors cannot cure Solidarity 9-6347.

And as we all undress at night, in the dim light of the candles, our brothers are silent, for they dare not speak the thoughts of their minds. For all must agree with all, and they cannot know if their thoughts are the thoughts of all, and so they fear to speak. And they are glad when the candles are blown for the night. But we, Equality 7-2521, look through the window upon the sky, and there is peace in the sky, and cleanliness, and dignity. And beyond the City there lies the plain, and beyond the plain, black upon the black sky, there lies the Uncharted Forest.

We do not wish to look upon the Uncharted Forest. We do not wish to think of it. But ever do our eyes return to that black patch upon the sky. Men never enter the Uncharted Forest, for there is no power to explore it and no path to lead among its ancient trees which stand as guards of fearful secrets. It is whispered that once or twice in a hundred years, one among the men of the City escape alone and run to the Uncharted Forest, without call or reason. These men do not return. They perish from hunger and from the claws of the wild beasts which roam the Forest. But our Councils say that this is only a legend. We have heard that there are many Uncharted Forests over the land, among the Cities. And it is whispered that they have grown over the ruins of many cities of the Unmentionable Times. The trees have swallowed the ruins, and the bones under the ruins, and all the things which perished. And as we look upon the Uncharted Forest far in the night, we think of the secrets of the Unmentionable Times. And we wonder how it came to pass that these secrets were lost to the world. We have heard the legends of the great fighting, in which many men fought on one side and only a few on the other. These few were the Evil Ones and they were conquered. Then great fires raged over the land. And in these fires the Evil Ones and all the things made by the Evil Ones were burned. And the fire which is called the Dawn of the Great Rebirth, was the Script Fire where all the scripts of the Evil Ones were burned, and with them all the words of the Evil Ones. Great mountains of flame stood in the squares of the Cities for three months. Then came the Great Rebirth.

The words of the Evil Ones... The words of the Unmentionable Times... What are the words which we have lost?

May the Council have mercy upon us! We had no wish to write such a question, and we knew not what we were doing till we had written it. We shall not ask this question and we shall not think it. We shall not call death upon our head.

And yet... And yet... There is some word, one single word which is not in the language of men, but which had been. And this is the Unspeakable Word, which no men may speak nor hear. But sometimes, and it is rare, sometimes, somewhere, one among men find that word. They find it upon scraps of old manuscripts or cut into the fragments of ancient stones. But when they speak it they are put to death. There is no crime punished by death in this world, save

this one crime of speaking the Unspeakable Word.

We have seen one of such men burned alive in the square of the City. And it was a sight which has stayed with us through the years, and it haunts us, and follows us, and it gives us no rest. We were a child then, ten years old. And we stood in the great square with all the children and all the men of the City, sent to behold the burning. They brought the Transgressor out into the square and they led them to the pyre. They had torn out the tongue of the Transgressor, so that they could speak no longer. The Transgressor were young and tall. They had hair of gold and eyes blue as morning. They walked to the pyre, and their step did not falter. And of all the faces on that square, of all the faces which shrieked and screamed and spat curses upon them, theirs was the calmest and the happiest face.

As the chains were wound over their body at the stake, and a flame set to the pyre, the Transgressor looked upon the City. There was a thin thread of blood running from the corner of their mouth, but their lips were smiling. And a monstrous thought came to us then, which has never left us. We had heard of Saints. There are the Saints of Labor, and the Saints of the Councils, and the Saints of the Great Rebirth. But we had never seen a Saint nor what the likeness of a Saint should be. And we thought then, standing in the square, that the likeness of a Saint was the face we saw before us in the flames, the face of the Transgressor of the Unspeakable Word.

As the flames rose, a thing happened which no eyes saw but ours, else we would not be living today. Perhaps it had only seemed to us. But it seemed to us that the eyes of the Transgressor had chosen us from the crowd and were looking straight upon us. There was no pain in their eyes and no knowledge of the agony of their body. There was only joy in them, and pride, a pride holier than is fit for human pride to be. And it seemed as if these eyes were trying to tell us something through the flames, to send into our eyes some word without sound. And it seemed as if these eyes were begging us to gather that word and not to let it go from us and from the earth. But the flames rose and we could not guess the word....

What—even if we have to burn for it like the Saint of the Pyre—what is the Unspeakable Word?

PART THREE

We, Equality 7-2521, have discovered a new power of nature. And we have discovered it alone, and we alone are to know it.

It is said. Now let us be lashed for it, if we must. The Council of Scholars has said that we all know the things which exist and therefore the things which are not known by all do not exist. But we think that the Council of Scholars is blind. The secrets of this earth are not for all men to see, but only for those who will seek them. We know, for we have found a secret unknown to all our brothers.

We know not what this power is nor whence it comes. But we know its nature, we have watched it and worked with it. We saw it first two years ago. One night, we were cutting open the body of a dead frog when we saw its leg jerking. It was dead, yet it moved. Some power unknown to men was making it move. We could not understand it. Then, after many tests, we found the answer. The frog had been hanging on a wire of copper; and it had been the metal of our knife which had sent the strange power to the copper through the brine of the frog's body. We put a piece of copper and a piece of zinc into a jar of brine, we touched a wire to them, and there, under our fingers, was a miracle which had never occurred before, a new miracle and a new power.

This discovery haunted us. We followed it in preference to all our studies. We worked with it, we tested it in more ways than we can describe, and each step was as another miracle unveiling before us. We came to know that we had found the greatest power on earth. For it defies all the laws known to men. It makes the needle move and turn on the compass which we stole from the Home of the Scholars; but we had been taught, when still a child, that the loadstone points to the north and that this is a law which nothing can change; yet our new power defies all laws. We found that it causes lightning, and never have men known what causes lightning. In thunderstorms, we raised a tall rod of iron by the side of our hole, and we watched it from below. We have seen the lightning strike it again and again. And now we know that metal draws the power of the sky, and that metal can be made to give it forth.

We have built strange things with this discovery of ours. We used for it the copper wires which we found here under the ground. We have walked the length

of our tunnel, with a candle lighting the way. We could go no farther than half a mile, for earth and rock had fallen at both ends. But we gathered all the things we found and we brought them to our work place. We found strange boxes with bars of metal inside, with many cords and strands and coils of metal. We found wires that led to strange little globes of glass on the walls; they contained threads of metal thinner than a spider's web.

These things help us in our work. We do not understand them, but we think that the men of the Unmentionable Times had known our power of the sky, and these things had some relation to it. We do not know, but we shall learn. We cannot stop now, even though it frightens us that we are alone in our knowledge.

No single one can possess greater wisdom than the many Scholars who are elected by all men for their wisdom. Yet we can. We do. We have fought against saying it, but now it is said. We do not care. We forget all men, all laws and all things save our metals and our wires. So much is still to be learned! So long a road lies before us, and what care we if we must travel it alone!

PART FOUR

Many days passed before we could speak to the Golden One again. But then came the day when the sky turned white, as if the sun had burst and spread its flame in the air, and the fields lay still without breath, and the dust of the road was white in the glow. So the women of the field were weary, and they tarried over their work, and they were far from the road when we came. But the Golden One stood alone at the hedge, waiting. We stopped and we saw that their eyes, so hard and scornful to the world, were looking at us as if they would obey any word we might speak.

And we said:

"We have given you a name in our thoughts, Liberty 5-3000."

"What is our name?" they asked.

"The Golden One."

"Nor do we call you Equality 7-2521 when we think of you."

"What name have you given us?" They looked straight into our eyes and they held their head high and they answered:

"The Unconquered."

For a long time we could not speak. Then we said:

"Such thoughts as these are forbidden, Golden One."

"But you think such thoughts as these and you wish us to think them."

We looked into their eyes and we could not lie.

"Yes," we whispered, and they smiled, and then we said: "Our dearest one, do not obey us."

They stepped back, and their eyes were wide and still.

"Speak these words again," they whispered.

"Which words?" we asked. But they did not answer, and we knew it.

"Our dearest one," we whispered.

Never have men said this to women.

The head of the Golden One bowed slowly, and they stood still before us, their arms at their sides, the palms of their hands turned to us, as if their body were delivered in submission to our eyes. And we could not speak.

Then they raised their head, and they spoke simply and gently, as if they wished us to forget some anxiety of their own.

"The day is hot," they said, "and you have worked for many hours and you must be weary."

"No," we answered.

"It is cooler in the fields," they said, "and there is water to drink. Are you thirsty?"

"Yes," we answered, "but we cannot cross the hedge."

"We shall bring the water to you," they said.

Then they knelt by the moat, they gathered water in their two hands, they rose and they held the water out to our lips.

We do not know if we drank that water. We only knew suddenly that their hands were empty, but we were still holding our lips to their hands, and that they knew it, but did not move.

We raised our head and stepped back. For we did not understand what had made us do this, and we were afraid to understand it.

And the Golden One stepped back, and stood looking upon their hands in wonder. Then the Golden One moved away, even though no others were coming, and they moved, stepping back, as if they could not turn from us, their arms bent before them, as if they could not lower their hands.

PART FIVE

We made it. We created it. We brought it forth from the night of the ages. We alone. Our hands. Our mind. Ours alone and only.

We know not what we are saying. Our head is reeling. We look upon the light which we have made. We shall be forgiven for anything we say tonight....

Tonight, after more days and trials than we can count, we finished building a strange thing, from the remains of the Unmentionable Times, a box of glass, devised to give forth the power of the sky of greater strength than we had ever achieved before. And when we put our wires to this box, when we closed the current—the wire glowed! It came to life, it turned red, and a circle of light lay on the stone before us.

We stood, and we held our head in our hands. We could not conceive of that which we had created. We had touched no flint, made no fire. Yet here was light, light that came from nowhere, light from the heart of metal.

We blew out the candle. Darkness swallowed us. There was nothing left around us, nothing save night and a thin thread of flame in it, as a crack in the wall of a prison. We stretched our hands to the wire, and we saw our fingers in the red glow. We could not see our body nor feel it, and in that moment nothing existed save our two hands over a wire glowing in a black abyss.

Then we thought of the meaning of that which lay before us. We can light our tunnel, and the City, and all the Cities of the world with nothing save metal and wires. We can give our brothers a new light, cleaner and brighter than any they have ever known. The power of the sky can be made to do men's bidding. There are no limits to its secrets and its might, and it can be made to grant us anything if we but choose to ask.

Then we knew what we must do. Our discovery is too great for us to waste our time in sweeping the streets. We must not keep our secret to ourselves, nor buried under the ground. We must bring it into the sight of all men. We need all our time, we need the work rooms of the Home of the Scholars, we want the help of our brother Scholars and their wisdom joined to ours. There is so much work ahead for all of us, for all the Scholars of the world.

In a month, the World Council of Scholars is to meet in our City. It is a great Council, to which the wisest of all lands are elected, and it meets once a

year in the different Cities of the earth. We shall go to this Council and we shall lay before them, as our gift, this glass box with the power of the sky. We shall confess everything to them. They will see, understand and forgive. For our gift is greater than our transgression. They will explain it to the Council of Vocations, and we shall be assigned to the Home of the Scholars. This has never been done before, but neither has a gift such as ours ever been offered to men.

We must wait. We must guard our tunnel as we had never guarded it before. For should any men save the Scholars learn of our secret, they would not understand it, nor would they believe us. They would see nothing, save our crime of working alone, and they would destroy us and our light. We care not about our body, but our light is...

Yes, we do care. For the first time do we care about our body. For this wire is as a part of our body, as a vein torn from us, glowing with our blood. Are we proud of this thread of metal, or of our hands which made it, or is there a line to divide these two?

We stretch out our arms. For the first time do we know how strong our arms are. And a strange thought comes to us: we wonder, for the first time in our life, what we look like. Men never see their own faces and never ask their brothers about it, for it is evil to have concern for their own faces or bodies. But tonight, for a reason we cannot fathom, we wish it were possible to us to know the likeness of our own person.

PART SIX

We have not written for thirty days. For thirty days we have not been here, in our tunnel. We had been caught. It happened on that night when we wrote last. We forgot, that night, to watch the sand in the glass which tells us when three hours have passed and it is time to return to the City Theatre. When we remembered it, the sand had run out.

We hastened to the Theatre. But the big tent stood grey and silent against the sky. The streets of the City lay before us, dark and empty. If we went back to hide in our tunnel, we would be found and our light found with us. So we walked to the Home of the Street Sweepers.

When the Council of the Home questioned us, we looked upon the faces of the Council, but there was no curiosity in those faces, and no anger, and no mercy. So when the oldest of them asked us: "Where have you been?" we thought of our glass box and of our light, and we forgot all else. And we answered:

"We will not tell you."

The oldest did not question us further. They turned to the two youngest, and said, and their voice was bored:

"Take our brother Equality 7-2521 to the Palace of Corrective Detention. Lash them until they tell."

So we were taken to the Stone Room under the Palace of Corrective Detention. This room has no windows and it is empty save for an iron post. Two men stood by the post, naked but for leather aprons and leather hoods over their faces. Those who had brought us departed, leaving us to the two Judges who stood in a corner of the room. The Judges were small, thin men, grey and bent. They gave the signal to the two strong hooded ones.

They tore the clothes from our body, they threw us down upon our knees and they tied our hands to the iron post. The first blow of the lash felt as if our spine had been cut in two. The second blow stopped the first, and for a second we felt nothing, then the pain struck us in our throat and fire ran in our lungs without air. But we did not cry out.

The lash whistled like a singing wind. We tried to count the blows, but we lost count. We knew that the blows were falling upon our back. Only we felt

nothing upon our back any longer. A flaming grill kept dancing before our eyes, and we thought of nothing save that grill, a grill, a grill of red squares, and then we knew that we were looking at the squares of the iron grill in the door, and there were also the squares of stone on the walls, and the squares which the lash was cutting upon our back, crossing and re-crossing itself in our flesh.

Then we saw a fist before us. It knocked our chin up, and we saw the red froth of our mouth on the withered fingers, and the Judge asked:

"Where have you been?"

But we jerked our head away, hid our face upon our tied hands, and bit our lips.

The lash whistled again. We wondered who was sprinkling burning coal dust upon the floor, for we saw drops of red twinkling on the stones around us.

Then we knew nothing, save two voices snarling steadily, one after the other, even though we knew they were speaking many minutes apart:

"Where have you been where have you been where have you been where have you been?..."

And our lips moved, but the sound trickled back into our throat, and the sound was only:

"The light... The light... The light...."

Then we knew nothing.

We opened our eyes, lying on our stomach on the brick floor of a cell. We looked upon two hands lying far before us on the bricks, and we moved them, and we knew that they were our hands. But we could not move our body. Then we smiled, for we thought of the light and that we had not betrayed it.

We lay in our cell for many days. The door opened twice each day, once for the men who brought us bread and water, and once for the Judges. Many Judges came to our cell, first the humblest and then the most honored Judges of the City. They stood before us in their white togas, and they asked:

"Are you ready to speak?"

But we shook our head, lying before them on the floor. And they departed.

We counted each day and each night as it passed. Then, tonight, we knew that we must escape. For tomorrow the World Council of Scholars is to meet in our City.

It was easy to escape from the Palace of Corrective Detention. The locks are

old on the doors and there are no guards about. There is no reason to have guards, for men have never defied the Councils so far as to escape from whatever place they were ordered to be. Our body is healthy and strength returns to it speedily. We lunged against the door and it gave way. We stole through the dark passages, and through the dark streets, and down into our tunnel.

We lit the candle and we saw that our place had not been found and nothing had been touched. And our glass box stood before us on the cold oven, as we had left it. What matter they now, the scars upon our back!

Tomorrow, in the full light of day, we shall take our box, and leave our tunnel open, and walk through the streets to the Home of the Scholars. We shall put before them the greatest gift ever offered to men. We shall tell them the truth. We shall hand to them, as our confession, these pages we have written. We shall join our hands to theirs, and we shall work together, with the power of the sky, for the glory of mankind. Our blessing upon you, our brothers! Tomorrow, you will take us back into your fold and we shall be an outcast no longer. Tomorrow we shall be one of you again. Tomorrow...

PART SEVEN

It is dark here in the forest. The leaves rustle over our head, black against the last gold of the sky. The moss is soft and warm. We shall sleep on this moss for many nights, till the beasts of the forest come to tear our body. We have no bed now, save the moss, and no future, save the beasts.

We are old now, yet we were young this morning, when we carried our glass box through the streets of the City to the Home of the Scholars. No men stopped us, for there were none about from the Palace of Corrective Detention, and the others knew nothing. No men stopped us at the gate. We walked through empty passages and into the great hall where the World Council of Scholars sat in solemn meeting.

We saw nothing as we entered, save the sky in the great windows, blue and glowing. Then we saw the Scholars who sat around a long table; they were as shapeless clouds huddled at the rise of the great sky. There were men whose famous names we knew, and others from distant lands whose names we had not heard. We saw a great painting on the wall over their heads, of the twenty illustrious men who had invented the candle.

All the heads of the Council turned to us as we entered. These great and wise of the earth did not know what to think of us, and they looked upon us with wonder and curiosity, as if we were a miracle. It is true that our tunic was torn and stained with brown stains which had been blood. We raised our right arm and we said:

"Our greeting to you, our honored brothers of the World Council of Scholars!"

Then Collective 0-0009, the oldest and wisest of the Council, spoke and asked:

"Who are you, our brother? For you do not look like a Scholar."

"Our name is Equality 7-2521," we answered, "and we are a Street Sweeper of this City."

Then it was as if a great wind had stricken the hall, for all the Scholars spoke at once, and they were angry and frightened.

"A Street Sweeper! A Street Sweeper walking in upon the World Council of Scholars! It is not to be believed! It is against all the rules and all the laws!"

But we knew how to stop them.

"Our brothers!" we said. "We matter not, nor our transgression. It is only our brother men who matter. Give no thought to us, for we are nothing, but listen to our words, for we bring you a gift such as had never been brought to men. Listen to us, for we hold the future of mankind in our hands."

Then they listened.

We placed our glass box upon the table before them. We spoke of it, and of our long quest, and of our tunnel, and of our escape from the Palace of Corrective Detention. Not a hand moved in that hall, as we spoke, nor an eye. Then we put the wires to the box, and they all bent forward and sat still, watching. And we stood still, our eyes upon the wire. And slowly, slowly as a flush of blood, a red flame trembled in the wire. Then the wire glowed.

But terror struck the men of the Council. They leapt to their feet, they ran from the table, and they stood pressed against the wall, huddled together, seeking the warmth of one another's bodies to give them courage.

We looked upon them and we laughed and said:

"Fear nothing, our brothers. There is a great power in these wires, but this power is tamed. It is yours. We give it to you."

Still they would not move.

"We give you the power of the sky!" we cried. "We give you the key to the earth! Take it, and let us be one of you, the humblest among you. Let us all work together, and harness this power, and make it ease the toil of men. Let us throw away our candles and our torches. Let us flood our cities with light. Let us bring a new light to men!"

But they looked upon us, and suddenly we were afraid. For their eyes were still, and small, and evil.

"Our brothers!" we cried. "Have you nothing to say to us?"

Then Collective 0-0009 moved forward. They moved to the table and the others followed.

"Yes," spoke Collective 0-0009, "we have much to say to you."

The sound of their voices brought silence to the hall and to beat of our heart.

"Yes," said Collective 0-0009, "we have much to say to a wretch who have broken all the laws and who boast of their infamy!

"How dared you think that your mind held greater wisdom than the minds of your brothers? And if the Councils had decreed that you should be a Street Sweeper, how dared you think that you could be of greater use to men than in sweeping the streets?"

"How dared you, gutter cleaner," spoke Fraternity 9-3452, "to hold yourself as one alone and with the thoughts of the one and not of the many?"

"You shall be burned at the stake," said Democracy 4-6998.

"No, they shall be lashed," said Unanimity 7-3304, "till there is nothing left under the lashes."

"No," said Collective 0-0009, "we cannot decide upon this, our brothers. No such crime has ever been committed, and it is not for us to judge. Nor for any small Council. We shall deliver this creature to the World Council itself and let their will be done."

We looked upon them and we pleaded:

"Our brothers! You are right. Let the will of the Council be done upon our body. We do not care. But the light? What will you do with the light?"

Collective 0-0009 looked upon us, and they smiled.

"So you think that you have found a new power," said Collective 0-0009. "Do all your brothers think that?"

"No," we answered.

"What is not thought by all men cannot be true," said Collective 0-0009.

"You have worked on this alone?" asked International 1-5537.

"Many men in the Homes of the Scholars have had strange new ideas in the past," said Solidarity 8-1164, "but when the majority of their brother Scholars voted against them, they abandoned their ideas, as all men must."

"This box is useless," said Alliance 6-7349.

"Should it be what they claim of it," said Harmony 9-2642, "then it would bring ruin to the Department of Candles. The Candle is a great boon to mankind, as approved by all men. Therefore it cannot be destroyed by the whim of one."

"This would wreck the Plans of the World Council," said Unanimity 2-9913, "and without the Plans of the World Council the sun cannot rise. It took fifty years to secure the approval of all the Councils for the Candle, and to decide upon the number needed, and to re-fit the Plans so as to make candles

instead of torches. This touched upon thousands and thousands of men working in scores of States. We cannot alter the Plans again so soon."

"And if this should lighten the toil of men," said Similarity 5-0306, "then it is a great evil, for men have no cause to exist save in toiling for other men."

Then Collective 0-0009 rose and pointed at our box.

"This thing," they said, "must be destroyed."

And all the others cried as one:

"It must be destroyed!"

Then we leapt to the table.

We seized our box, we shoved them aside, and we ran to the window. We turned and we looked at them for the last time, and a rage, such as it is not fit for humans to know, choked our voice in our throat.

"You fools!" we cried. "You fools! You thrice-damned fools!"

We swung our fist through the windowpane, and we leapt out in a ringing rain of glass.

We fell, but we never let the box fall from our hands. Then we ran. We ran blindly, and men and houses streaked past us in a torrent without shape. And the road seemed not to be flat before us, but as if it were leaping up to meet us, and we waited for the earth to rise and strike us in the face. But we ran. We knew not where we were going. We knew only that we must run, run to the end of the world, to the end of our days.

Then we knew suddenly that we were lying on a soft earth and that we had stopped. Trees taller than we had ever seen before stood over us in great silence. Then we knew. We were in the Uncharted Forest. We had not thought of coming here, but our legs had carried our wisdom, and our legs had brought us to the Uncharted Forest against our will.

Our glass box lay beside us. We crawled to it, we fell upon it, our face in our arms, and we lay still.

We lay thus for a long time. Then we rose, we took our box and walked on into the forest.

It mattered not where we went. We knew that men would not follow us, for they never enter the Uncharted Forest. We had nothing to fear from them. The forest disposes of its own victims. This gave us no fear either. Only we wished to be away, away from the City and from the air that touches upon the air of the

City. So we walked on, our box in our arms, our heart empty.

We are doomed. Whatever days are left to us, we shall spend them alone. And we have heard of the corruption to be found in solitude. We have torn ourselves from the truth which is our brother men, and there is no road back for us, and no redemption.

We know these things, but we do not care. We care for nothing on earth. We are tired.

Only the glass box in our arms is like a living heart that gives us strength. We have lied to ourselves. We have not built this box for the good of our brothers. We built it for its own sake. It is above all our brothers to us, and its truth above their truth. Why wonder about this? We have not many days to live. We are walking to the fangs awaiting us somewhere among the great, silent trees. There is not a thing behind us to regret.

Then a blow of pain struck us, our first and our only. We thought of the Golden One. We thought of the Golden One whom we shall never see again. Then the pain passed. It is best. We are one of the Damned. It is best if the Golden One forget our name and the body which bore that name.

PART EIGHT

It has been a day of wonder, this, our first day in the forest.

We awoke when a ray of sunlight fell across our face. We wanted to leap to our feet, as we have had to leap every morning of our life, but we remembered suddenly that no bell had rung and that there was no bell to ring anywhere. We lay on our back, we threw our arms out, and we looked up at the sky. The leaves had edges of silver that trembled and rippled like a river of green and fire flowing high above us.

We did not wish to move. We thought suddenly that we could lie thus as long as we wished, and we laughed aloud at the thought. We could also rise, or run, or leap, or fall down again. We were thinking that these were thoughts without sense, but before we knew it our body had risen in one leap. Our arms stretched out of their own will, and our body whirled and whirled, till it raised a wind to rustle through the leaves of the bushes. Then our hands seized a branch and swung us high into a tree, with no aim save the wonder of learning the strength of our body. The branch snapped under us and we fell upon the moss that was soft as a cushion. Then our body, losing all sense, rolled over and over on the moss, dry leaves in our tunic, in our hair, in our face. And we heard suddenly that we were laughing, laughing aloud, laughing as if there were no power left in us save laughter.

Then we took our glass box, and we went on into the forest. We went on, cutting through the branches, and it was as if we were swimming through a sea of leaves, with the bushes as waves rising and falling and rising around us, and flinging their green sprays high to the treetops. The trees parted before us, calling us forward. The forest seemed to welcome us. We went on, without thought, without care, with nothing to feel save the song of our body.

We stopped when we felt hunger. We saw birds in the tree branches, and flying from under our footsteps. We picked a stone and we sent it as an arrow at a bird. It fell before us. We made a fire, we cooked the bird, and we ate it, and no meal had ever tasted better to us. And we thought suddenly that there was a great satisfaction to be found in the food which we need and obtain by our own hand. And we wished to be hungry again and soon, that we might know again this strange new pride in eating.

Then we walked on. And we came to a stream which lay as a streak of glass among the trees. It lay so still that we saw no water but only a cut in the earth, in which the trees grew down, upturned, and the sky lay at the bottom. We knelt by the stream and we bent down to drink. And then we stopped. For, upon the blue of the sky below us, we saw our own face for the first time.

We sat still and we held our breath. For our face and our body were beautiful. Our face was not like the faces of our brothers, for we felt not pity when looking upon it. Our body was not like the bodies of our brothers, for our limbs were straight and thin and hard and strong. And we thought that we could trust this being who looked upon us from the stream, and that we had nothing to fear with this being.

We walked on till the sun had set. When the shadows gathered among the trees, we stopped in a hollow between the roots, where we shall sleep tonight. And suddenly, for the first time this day, we remembered that we are the Damned. We remembered it, and we laughed.

We are writing this on the paper we had hidden in our tunic together with the written pages we had brought for the World Council of Scholars, but never given to them. We have much to speak of to ourselves, and we hope we shall find the words for it in the days to come. Now, we cannot speak, for we cannot understand.

PART NINE

We have not written for many days. We did not wish to speak. For we needed no words to remember that which has happened to us.

It was on our second day in the forest that we heard steps behind us. We hid in the bushes, and we waited. The steps came closer. And then we saw the fold of a white tunic among the trees, and a gleam of gold.

We leapt forward, we ran to them, and we stood looking upon the Golden One.

They saw us, and their hands closed into fists, and the fists pulled their arms down, as if they wished their arms to hold them, while their body swayed. And they could not speak.

We dared not come too close to them. We asked, and our voice trembled:

"How did you come to be here, Golden One?"

But they whispered only:

"We have found you...."

"How did you come to be in the forest?" we asked.

They raised their head, and there was a great pride in their voice; they answered:

"We have followed you."

Then we could not speak, and they said:

"We heard that you had gone to the Uncharted Forest, for the whole City is speaking of it. So on the night of the day when we heard it, we ran away from the Home of the Peasants. We found the marks of your feet across the plain where no men walk. So we followed them, and we went into the forest, and we followed the path where the branches were broken by your body."

Their white tunic was torn, and the branches had cut the skin of their arms, but they spoke as if they had never taken notice of it, nor of weariness, nor of fear.

"We have followed you," they said, "and we shall follow you wherever you go. If danger threatens you, we shall face it also. If it be death, we shall die with you. You are damned, and we wish to share your damnation."

They looked upon us, and their voice was low, but there was bitterness and triumph in their voice.

"Your eyes are as a flame, but our brothers have neither hope nor fire. Your mouth is cut of granite, but our brothers are soft and humble. Your head is high, but our brothers cringe. You walk, but our brothers crawl. We wish to be damned with you, rather than blessed with all our brothers. Do as you please with us, but do not send us away from you."

Then they knelt, and bowed their golden head before us.

We had never thought of that which we did. We bent to raise the Golden One to their feet, but when we touched them, it was as if madness had stricken us. We seized their body and we pressed our lips to theirs. The Golden One breathed once, and their breath was a moan, and then their arms closed around us.

We stood together for a long time. And we were frightened that we had lived for twenty-one years and had never known what joy is possible to men.

Then we said:

"Our dearest one. Fear nothing of the forest. There is no danger in solitude. We have no need of our brothers. Let us forget their good and our evil, let us forget all things save that we are together and that there is joy as a bond between us. Give us your hand. Look ahead. It is our own world, Golden One, a strange, unknown world, but our own."

Then we walked on into the forest, their hand in ours.

And that night we knew that to hold the body of women in our arms is neither ugly nor shameful, but the one ecstasy granted to the race of men.

We have walked for many days. The forest has no end, and we seek no end. But each day added to the chain of days between us and the City is like an added blessing.

We have made a bow and many arrows. We can kill more birds than we need for our food; we find water and fruit in the forest. At night, we choose a clearing, and we build a ring of fires around it. We sleep in the midst of that ring, and the beasts dare not attack us. We can see their eyes, green and yellow as coals, watching us from the tree branches beyond. The fires smoulder as a crown of jewels around us, and smoke stands still in the air, in columns made blue by the moonlight. We sleep together in the midst of the ring, the arms of the Golden One around us, their head upon our breast.

Some day, we shall stop and build a house, when we shall have gone far

enough. But we do not have to hasten. The days before us are without end, like the forest.

We cannot understand this new life which we have found, yet it seems so clear and so simple. When questions come to puzzle us, we walk faster, then turn and forget all things as we watch the Golden One following. The shadows of leaves fall upon their arms, as they spread the branches apart, but their shoulders are in the sun. The skin of their arms is like a blue mist, but their shoulders are white and glowing, as if the light fell not from above, but rose from under their skin. We watch the leaf which has fallen upon their shoulder, and it lies at the curve of their neck, and a drop of dew glistens upon it like a jewel. They approach us, and they stop, laughing, knowing what we think, and they wait obediently, without questions, till it pleases us to turn and go on.

We go on and we bless the earth under our feet. But questions come to us again, as we walk in silence. If that which we have found is the corruption of solitude, then what can men wish for save corruption? If this is the great evil of being alone, then what is good and what is evil?

Everything which comes from the many is good. Everything which comes from one is evil. This have we been taught with our first breath. We have broken the law, but we have never doubted it. Yet now, as we walk through the forest, we are learning to doubt.

There is no life for men, save in useful toil for the good of all their brothers. But we lived not, when we toiled for our brothers, we were only weary. There is no joy for men, save the joy shared with all their brothers. But the only things which taught us joy were the power we created in our wires, and the Golden One. And both these joys belong to us alone, they come from us alone, they bear no relation to all our brothers, and they do not concern our brothers in any way. Thus do we wonder.

There is some error, one frightful error, in the thinking of men. What is that error? We do not know, but the knowledge struggles within us, struggles to be born. Today, the Golden One stopped suddenly and said:

"We love you."

But they frowned and shook their head and looked at us helplessly.

"No," they whispered, "that is not what we wished to say."

They were silent, then they spoke slowly, and their words were halting, like

the words of a child learning to speak for the first time:

"We are one... alone... and only... and we love you who are one... alone... and only."

We looked into each other's eyes and we knew that the breath of a miracle had touched us, and fled, and left us groping vainly.

And we felt torn, torn for some word we could not find.

PART TEN

We are sitting at a table and we are writing this upon paper made thousands of years ago. The light is dim, and we cannot see the Golden One, only one lock of gold on the pillow of an ancient bed. This is our home.

We came upon it today, at sunrise. For many days we had been crossing a chain of mountains. The forest rose among cliffs, and whenever we walked out upon a barren stretch of rock we saw great peaks before us in the west, and to the north of us, and to the south, as far as our eyes could see. The peaks were red and brown, with the green streaks of forests as veins upon them, with blue mists as veils over their heads. We had never heard of these mountains, nor seen them marked on any map. The Uncharted Forest has protected them from the Cities and from the men of the Cities.

We climbed paths where the wild goat dared not follow. Stones rolled from under our feet, and we heard them striking the rocks below, farther and farther down, and the mountains rang with each stroke, and long after the strokes had died. But we went on, for we knew that no men would ever follow our track nor reach us here.

Then today, at sunrise, we saw a white flame among the trees, high on a sheer peak before us. We thought that it was a fire and stopped. But the flame was unmoving, yet blinding as liquid metal. So we climbed toward it through the rocks. And there, before us, on a broad summit, with the mountains rising behind it, stood a house such as we had never seen, and the white fire came from the sun on the glass of its windows.

The house had two stories and a strange roof flat as a floor. There was more window than wall upon its walls, and the windows went on straight around the corners, though how this kept the house standing we could not guess. The walls were hard and smooth, of that stone unlike stone which we had seen in our tunnel.

We both knew it without words: this house was left from the Unmentionable Times. The trees had protected it from time and weather, and from men who have less pity than time and weather. We turned to the Golden One and we asked:

"Are you afraid?"

But they shook their head. So we walked to the door, and we threw it open, and we stepped together into the house of the Unmentionable Times.

We shall need the days and the years ahead, to look, to learn, and to understand the things of this house. Today, we could only look and try to believe the sight of our eyes. We pulled the heavy curtains from the windows and we saw that the rooms were small, and we thought that not more than twelve men could have lived here. We thought it strange that men had been permitted to build a house for only twelve.

Never had we seen rooms so full of light. The sunrays danced upon colors, colors, more colors than we thought possible, we who had seen no houses save the white ones, the brown ones and the grey. There were great pieces of glass on the walls, but it was not glass, for when we looked upon it we saw our own bodies and all the things behind us, as on the face of a lake. There were strange things which we had never seen and the use of which we do not know. And there were globes of glass everywhere, in each room, the globes with the metal cobwebs inside, such as we had seen in our tunnel.

We found the sleeping hall and we stood in awe upon its threshold. For it was a small room and there were only two beds in it. We found no other beds in the house, and then we knew that only two had lived here, and this passes understanding. What kind of world did they have, the men of the Unmentionable Times?

We found garments, and the Golden One gasped at the sight of them. For they were not white tunics, nor white togas; they were of all colors, no two of them alike. Some crumbled to dust as we touched them. But others were of heavier cloth, and they felt soft and new in our fingers.

We found a room with walls made of shelves, which held rows of manuscripts, from the floor to the ceiling. Never had we seen such a number of them, nor of such strange shape. They were not soft and rolled, they had hard shells of cloth and leather; and the letters on their pages were so small and so even that we wondered at the men who had such handwriting. We glanced through the pages, and we saw that they were written in our language, but we found many words which we could not understand. Tomorrow, we shall begin to read these scripts.

When we had seen all the rooms of the house, we looked at the Golden One

and we both knew the thought in our minds.

"We shall never leave this house," we said, "nor let it be taken from us. This is our home and the end of our journey. This is your house, Golden One, and ours, and it belongs to no other men whatever as far as the earth may stretch. We shall not share it with others, as we share not our joy with them, nor our love, nor our hunger. So be it to the end of our days."

"Your will be done," they said.

Then we went out to gather wood for the great hearth of our home. We brought water from the stream which runs among the trees under our windows. We killed a mountain goat, and we brought its flesh to be cooked in a strange copper pot we found in a place of wonders, which must have been the cooking room of the house.

We did this work alone, for no words of ours could take the Golden One away from the big glass which is not glass. They stood before it and they looked and looked upon their own body.

When the sun sank beyond the mountains, the Golden One fell asleep on the floor, amidst jewels, and bottles of crystal, and flowers of silk. We lifted the Golden One in our arms and we carried them to a bed, their head falling softly upon our shoulder. Then we lit a candle, and we brought paper from the room of the manuscripts, and we sat by the window, for we knew that we could not sleep tonight.

And now we look upon the earth and sky. This spread of naked rock and peaks and moonlight is like a world ready to be born, a world that waits. It seems to us it asks a sign from us, a spark, a first commandment. We cannot know what word we are to give, nor what great deed this earth expects to witness. We know it waits. It seems to say it has great gifts to lay before us, but it wishes a greater gift for us. We are to speak. We are to give its goal, its highest meaning to all this glowing space of rock and sky.

We look ahead, we beg our heart for guidance in answering this call no voice has spoken, yet we have heard. We look upon our hands. We see the dust of centuries, the dust which hid the great secrets and perhaps great evils. And yet it stirs no fear within our heart, but only silent reverence and pity.

May knowledge come to us! What is the secret our heart has understood and yet will not reveal to us, although it seems to beat as if it were endeavoring to

tell it?

PART ELEVEN

I am. I think. I will.

My hands... My spirit... My sky... My forest... This earth of mine.... What must I say besides? These are the words. This is the answer.

I stand here on the summit of the mountain. I lift my head and I spread my arms. This, my body and spirit, this is the end of the quest. I wished to know the meaning of things. I am the meaning. I wished to find a warrant for being. I need no warrant for being, and no word of sanction upon my being. I am the warrant and the sanction.

It is my eyes which see, and the sight of my eyes grants beauty to the earth. It is my ears which hear, and the hearing of my ears gives its song to the world. It is my mind which thinks, and the judgement of my mind is the only searchlight that can find the truth. It is my will which chooses, and the choice of my will is the only edict I must respect.

Many words have been granted me, and some are wise, and some are false, but only three are holy: "I will it!"

Whatever road I take, the guiding star is within me; the guiding star and the loadstone which point the way. They point in but one direction. They point to me.

I know not if this earth on which I stand is the core of the universe or if it is but a speck of dust lost in eternity. I know not and I care not. For I know what happiness is possible to me on earth. And my happiness needs no higher aim to vindicate it. My happiness is not the means to any end. It is the end. It is its own goal. It is its own purpose.

Neither am I the means to any end others may wish to accomplish. I am not a tool for their use. I am not a servant of their needs. I am not a bandage for their wounds. I am not a sacrifice on their altars.

I am a man. This miracle of me is mine to own and keep, and mine to guard, and mine to use, and mine to kneel before!

I do not surrender my treasures, nor do I share them. The fortune of my spirit is not to be blown into coins of brass and flung to the winds as alms for the poor of the spirit. I guard my treasures: my thought, my will, my freedom. And the greatest of these is freedom.

I owe nothing to my brothers, nor do I gather debts from them. I ask none to live for me, nor do I live for any others. I covet no man's soul, nor is my soul theirs to covet.

I am neither foe nor friend to my brothers, but such as each of them shall deserve of me. And to earn my love, my brothers must do more than to have been born. I do not grant my love without reason, nor to any chance passer-by who may wish to claim it. I honor men with my love. But honor is a thing to be earned.

I shall choose friends among men, but neither slaves nor masters. And I shall choose only such as please me, and them I shall love and respect, but neither command nor obey. And we shall join our hands when we wish, or walk alone when we so desire. For in the temple of his spirit, each man is alone. Let each man keep his temple untouched and undefiled. Then let him join hands with others if he wishes, but only beyond his holy threshold.

For the word "We" must never be spoken, save by one's choice and as a second thought. This word must never be placed first within man's soul, else it becomes a monster, the root of all the evils on earth, the root of man's torture by men, and of an unspeakable lie.

The word "We" is as lime poured over men, which sets and hardens to stone, and crushes all beneath it, and that which is white and that which is black are lost equally in the grey of it. It is the word by which the depraved steal the virtue of the good, by which the weak steal the might of the strong, by which the fools steal the wisdom of the sages.

What is my joy if all hands, even the unclean, can reach into it? What is my wisdom, if even the fools can dictate to me? What is my freedom, if all creatures, even the botched and the impotent, are my masters? What is my life, if I am but to bow, to agree and to obey?

But I am done with this creed of corruption.

I am done with the monster of "We," the word of serfdom, of plunder, of misery, falsehood and shame.

And now I see the face of god, and I raise this god over the earth, this god whom men have sought since men came into being, this god who will grant them joy and peace and pride.

This god, this one word:

“I.”

PART TWELVE

It was when I read the first of the books I found in my house that I saw the word "I." And when I understood this word, the book fell from my hands, and I wept, I who had never known tears. I wept in deliverance and in pity for all mankind.

I understood the blessed thing which I had called my curse. I understood why the best in me had been my sins and my transgressions; and why I had never felt guilt in my sins. I understood that centuries of chains and lashes will not kill the spirit of man nor the sense of truth within him.

I read many books for many days. Then I called the Golden One, and I told her what I had read and what I had learned. She looked at me and the first words she spoke were:

"I love you."

Then I said:

"My dearest one, it is not proper for men to be without names. There was a time when each man had a name of his own to distinguish him from all other men. So let us choose our names. I have read of a man who lived many thousands of years ago, and of all the names in these books, his is the one I wish to bear. He took the light of the gods and he brought it to men, and he taught men to be gods. And he suffered for his deed as all bearers of light must suffer. His name was Prometheus."

"It shall be your name," said the Golden One.

"And I have read of a goddess," I said, "who was the mother of the earth and of all the gods. Her name was Gaea. Let this be your name, my Golden One, for you are to be the mother of a new kind of gods."

"It shall be my name," said the Golden One.

Now I look ahead. My future is clear before me. The Saint of the pyre had seen the future when he chose me as his heir, as the heir of all the saints and all the martyrs who came before him and who died for the same cause, for the same word, no matter what name they gave to their cause and their truth.

I shall live here, in my own house. I shall take my food from the earth by the toil of my own hands. I shall learn many secrets from my books. Through the years ahead, I shall rebuild the achievements of the past, and open the way to

carry them further, the achievements which are open to me, but closed forever to my brothers, for their minds are shackled to the weakest and dullest ones among them.

I have learned that my power of the sky was known to men long ago; they called it Electricity. It was the power that moved their greatest inventions. It lit this house with light which came from those globes of glass on the walls. I have found the engine which produced this light. I shall learn how to repair it and how to make it work again. I shall learn how to use the wires which carry this power. Then I shall build a barrier of wires around my home, and across the paths which lead to my home; a barrier light as a cobweb, more impassable than a wall of granite; a barrier my brothers will never be able to cross. For they have nothing to fight me with, save the brute force of their numbers. I have my mind.

Then here, on this mountaintop, with the world below me and nothing above me but the sun, I shall live my own truth. Gaea is pregnant with my child. Our son will be raised as a man. He will be taught to say "I" and to bear the pride of it. He will be taught to walk straight and on his own feet. He will be taught reverence for his own spirit.

When I shall have read all the books and learned my new way, when my home will be ready and my earth tilled, I shall steal one day, for the last time, into the cursed City of my birth. I shall call to me my friend who has no name save International 4-8818, and all those like him, Fraternity 2-5503, who cries without reason, and Solidarity 9-6347 who calls for help in the night, and a few others. I shall call to me all the men and the women whose spirit has not been killed within them and who suffer under the yoke of their brothers. They will follow me and I shall lead them to my fortress. And here, in this uncharted wilderness, I and they, my chosen friends, my fellow-builders, shall write the first chapter in the new history of man.

These are the things before me. And as I stand here at the door of glory, I look behind me for the last time. I look upon the history of men, which I have learned from the books, and I wonder. It was a long story, and the spirit which moved it was the spirit of man's freedom. But what is freedom? Freedom from what? There is nothing to take a man's freedom away from him, save other men. To be free, a man must be free of his brothers. That is freedom. That and nothing else.

At first, man was enslaved by the gods. But he broke their chains. Then he was enslaved by the kings. But he broke their chains. He was enslaved by his birth, by his kin, by his race. But he broke their chains. He declared to all his brothers that a man has rights which neither god nor king nor other men can take away from him, no matter what their number, for his is the right of man, and there is no right on earth above this right. And he stood on the threshold of the freedom for which the blood of the centuries behind him had been spilled.

But then he gave up all he had won, and fell lower than his savage beginning.

What brought it to pass? What disaster took their reason away from men? What whip lashed them to their knees in shame and submission? The worship of the word "We."

When men accepted that worship, the structure of centuries collapsed about them, the structure whose every beam had come from the thought of some one man, each in his day down the ages, from the depth of some one spirit, such spirit as existed but for its own sake. Those men who survived those eager to obey, eager to live for one another, since they had nothing else to vindicate them—those men could neither carry on, nor preserve what they had received. Thus did all thought, all science, all wisdom perish on earth. Thus did men—men with nothing to offer save their great number—lost the steel towers, the flying ships, the power wires, all the things they had not created and could never keep. Perhaps, later, some men had been born with the mind and the courage to recover these things which were lost; perhaps these men came before the Councils of Scholars. They were answered as I have been answered—and for the same reasons.

But I still wonder how it was possible, in those graceless years of transition, long ago, that men did not see whither they were going, and went on, in blindness and cowardice, to their fate. I wonder, for it is hard for me to conceive how men who knew the word "I" could give it up and not know what they lost. But such has been the story, for I have lived in the City of the damned, and I know what horror men permitted to be brought upon them.

Perhaps, in those days, there were a few among men, a few of clear sight and clean soul, who refused to surrender that word. What agony must have been theirs before that which they saw coming and could not stop! Perhaps they cried

out in protest and in warning. But men paid no heed to their warning. And they, these few, fought a hopeless battle, and they perished with their banners smeared by their own blood. And they chose to perish, for they knew. To them, I send my salute across the centuries, and my pity.

Theirs is the banner in my hand. And I wish I had the power to tell them that the despair of their hearts was not to be final, and their night was not without hope. For the battle they lost can never be lost. For that which they died to save can never perish. Through all the darkness, through all the shame of which men are capable, the spirit of man will remain alive on this earth. It may sleep, but it will awaken. It may wear chains, but it will break through. And man will go on. Man, not men.

Here on this mountain, I and my sons and my chosen friends shall build our new land and our fort. And it will become as the heart of the earth, lost and hidden at first, but beating, beating louder each day. And word of it will reach every corner of the earth. And the roads of the world will become as veins which will carry the best of the world's blood to my threshold. And all my brothers, and the Councils of my brothers, will hear of it, but they will be impotent against me. And the day will come when I shall break all the chains of the earth, and raze the cities of the enslaved, and my home will become the capital of a world where each man will be free to exist for his own sake.

For the coming of that day shall I fight, I and my sons and my chosen friends. For the freedom of Man. For his rights. For his life. For his honor.

And here, over the portals of my fort, I shall cut in the stone the word which is to be my beacon and my banner. The word which will not die, should we all perish in battle. The word which can never die on this earth, for it is the heart of it and the meaning and the glory.

The sacred word:

EGO

SECOND VARIETY



BY PHILIP K. DICK

The claws were bad enough in the first place—nasty, crawling little death-robots. But when they began to imitate their creators, it was time for the human race to make peace—if it could!

The Russian soldier made his way nervously up the ragged side of the hill, holding his gun ready. He glanced around him, licking his dry lips, his face set. From time to time he reached up a gloved hand and wiped perspiration from his neck, pushing down his coat collar.

Eric turned to Corporal Leone. "Want him? Or can I have him?" He adjusted the view sight so the Russian's features squarely filled the glass, the lines cutting across his hard, somber features.

Leone considered. The Russian was close, moving rapidly, almost running. "Don't fire. Wait." Leone tensed. "I don't think we're needed."

The Russian increased his pace, kicking ash and piles of debris out of his way. He reached the top of the hill and stopped, panting, staring around him. The sky was overcast, drifting clouds of gray particles. Bare trunks of trees jutted up occasionally; the ground was level and bare, rubble-strewn, with the ruins of buildings standing out here and there like yellowing skulls.

The Russian was uneasy. He knew something was wrong. He started down the hill. Now he was only a few paces from the bunker. Eric was getting fidgety. He played with his pistol, glancing at Leone.

"Don't worry," Leone said. "He won't get here. They'll take care of him."

"Are you sure? He's got damn far."

"They hang around close to the bunker. He's getting into the bad part. Get set!"

The Russian began to hurry, sliding down the hill, his boots sinking into the heaps of gray ash, trying to keep his gun up. He stopped for a moment, lifting his fieldglasses to his face.

"He's looking right at us," Eric said.

The Russian came on. They could see his eyes, like two blue stones. His mouth was open a little. He needed a shave; his chin was stubbled. On one bony cheek was a square of tape, showing blue at the edge. A fungoid spot. His coat was muddy and torn. One glove was missing. As he ran his belt counter bounced up and down against him.

Leone touched Eric's arm. "Here one comes."

Across the ground something small and metallic came, flashing in the dull sunlight of mid-day. A metal sphere. It raced up the hill after the Russian, its treads flying. It was small, one of the baby ones. Its claws were out, two razor projections spinning in a blur of white steel. The Russian heard it. He turned instantly, firing. The sphere dissolved into particles. But already a second had emerged and was following the first. The Russian fired again.

A third sphere leaped up the Russian's leg, clicking and whirring. It jumped to the shoulder. The spinning blades disappeared into the Russian's throat.

Eric relaxed. "Well, that's that. God, those damn things give me the creeps. Sometimes I think we were better off before."

"If we hadn't invented them, they would have." Leone lit a cigarette shakily. "I wonder why a Russian would come all this way alone. I didn't see anyone covering him."

Lt. Scott came slipping up the tunnel, into the bunker. "What happened? Something entered the screen."

"An Ivan."

"Just one?"

Eric brought the view screen around. Scott peered into it. Now there were numerous metal spheres crawling over the prostrate body, dull metal globes clicking and whirring, sawing up the Russian into small parts to be carried away.

"What a lot of claws," Scott murmured.

"They come like flies. Not much game for them any more."

Scott pushed the sight away, disgusted. "Like flies. I wonder why he was out there. They know we have claws all around."

A larger robot had joined the smaller spheres. It was directing operations, a long blunt tube with projecting eyepieces. There was not much left of the soldier. What remained was being brought down the hillside by the host of claws.

"Sir," Leone said. "If it's all right, I'd like to go out there and take a look at him."

"Why?"

"Maybe he came with something."

Scott considered. He shrugged. "All right. But be careful."

"I have my tab." Leone patted the metal band at his wrist. "I'll be out of bounds."

He picked up his rifle and stepped carefully up to the mouth of the bunker, making his way between blocks of concrete and steel prongs, twisted and bent. The air was cold at the top. He crossed over the ground toward the remains of the soldier, striding across the soft ash. A wind blew around him, swirling gray particles up in his face. He squinted and pushed on.

The claws retreated as he came close, some of them stiffening into immobility. He touched his tab. The Ivan would have given something for that! Short hard radiation emitted from the tab neutralized the claws, put them out of commission. Even the big robot with its two waving eyestalks retreated respectfully as he approached.

He bent down over the remains of the soldier. The gloved hand was closed tightly. There was something in it. Leone pried the fingers apart. A sealed container, aluminum. Still shiny.

He put it in his pocket and made his way back to the bunker. Behind him the claws came back to life, moving into operation again. The procession resumed, metal spheres moving through the gray ash with their loads. He could hear their treads scrabbling against the ground. He shuddered.

Scott watched intently as he brought the shiny tube out of his pocket. "He had that?"

"In his hand." Leone unscrewed the top. "Maybe you should look at it, sir."

Scott took it. He emptied the contents out in the palm of his hand. A small piece of silk paper, carefully folded. He sat down by the light and unfolded it.

"What's it say, sir?" Eric said. Several officers came up the tunnel. Major Hendricks appeared.

"Major," Scott said. "Look at this."

Hendricks read the slip. "This just come?"

"A single runner. Just now."

"Where is he?" Hendricks asked sharply.

"The claws got him."

Major Hendricks grunted. "Here." He passed it to his companions. "I think

this is what we've been waiting for. They certainly took their time about it."

"So they want to talk terms," Scott said. "Are we going along with them?"

"That's not for us to decide." Hendricks sat down. "Where's the communications officer? I want the Moon Base."

Leone pondered as the communications officer raised the outside antenna cautiously, scanning the sky above the bunker for any sign of a watching Russian ship.

"Sir," Scott said to Hendricks. "It's sure strange they suddenly came around. We've been using the claws for almost a year. Now all of a sudden they start to fold."

"Maybe claws have been getting down in their bunkers."

"One of the big ones, the kind with stalks, got into an Ivan bunker last week," Eric said. "It got a whole platoon of them before they got their lid shut."

"How do you know?"

"A buddy told me. The thing came back with—with remains."

"Moon Base, sir," the communications officer said.

On the screen the face of the lunar monitor appeared. His crisp uniform contrasted to the uniforms in the bunker. And he was clean shaven. "Moon Base."

"This is forward command L-Whistle. On Terra. Let me have General Thompson."

The monitor faded. Presently General Thompson's heavy features came into focus. "What is it, Major?"

"Our claws got a single Russian runner with a message. We don't know whether to act on it—there have been tricks like this in the past."

"What's the message?"

"The Russians want us to send a single officer on policy level over to their lines. For a conference. They don't state the nature of the conference. They say that matters of—" He consulted the slip. "—Matters of grave urgency make it advisable that discussion be opened between a representative of the UN forces and themselves."

He held the message up to the screen for the general to scan. Thompson's eyes moved.

"What should we do?" Hendricks said.

"Send a man out."

"You don't think it's a trap?"

"It might be. But the location they give for their forward command is correct. It's worth a try, at any rate."

"I'll send an officer out. And report the results to you as soon as he returns."

"All right, Major." Thompson broke the connection. The screen died. Up above, the antenna came slowly down.

Hendricks rolled up the paper, deep in thought.

"I'll go," Leone said.

"They want somebody at policy level." Hendricks rubbed his jaw. "Policy level. I haven't been outside in months. Maybe I could use a little air."

"Don't you think it's risky?"

Hendricks lifted the view sight and gazed into it. The remains of the Russian were gone. Only a single claw was in sight. It was folding itself back, disappearing into the ash, like a crab. Like some hideous metal crab….

"That's the only thing that bothers me." Hendricks rubbed his wrist. "I know I'm safe as long as I have this on me. But there's something about them. I hate the damn things. I wish we'd never invented them. There's something wrong with them. Relentless little—"

"If we hadn't invented them, the Ivans would have."

Hendricks pushed the sight back. "Anyhow, it seems to be winning the war. I guess that's good."

"Sounds like you're getting the same jitters as the Ivans." Hendricks examined his wrist watch. "I guess I had better get started, if I want to be there before dark."

He took a deep breath and then stepped out onto the gray, rubbled ground. After a minute he lit a cigarette and stood gazing around him. The landscape was dead. Nothing stirred. He could see for miles, endless ash and slag, ruins of buildings. A few trees without leaves or branches, only the trunks. Above him the eternal rolling clouds of gray, drifting between Terra and the sun.

Major Hendricks went on. Off to the right something scuttled, something round and metallic. A claw, going lickety-split after something. Probably after a small animal, a rat. They got rats, too. As a sort of sideline.

He came to the top of the little hill and lifted his fieldglasses. The Russian lines were a few miles ahead of him. They had a forward command post there. The runner had come from it.

A squat robot with undulating arms passed by him, its arms weaving inquiringly. The robot went on its way, disappearing under some debris. Hendricks watched it go. He had never seen that type before. There were getting to be more and more types he had never seen, new varieties and sizes coming up from the underground factories.

Hendricks put out his cigarette and hurried on. It was interesting, the use of artificial forms in warfare. How had they got started? Necessity. The Soviet Union had gained great initial success, usual with the side that got the war going. Most of North America had been blasted off the map. Retaliation was quick in coming, of course. The sky was full of circling disc-bombers long before the war began; they had been up there for years. The discs began sailing down all over Russia within hours after Washington got it.

But that hadn't helped Washington.

The American bloc governments moved to the Moon Base the first year. There was not much else to do. Europe was gone; a slag heap with dark weeds growing from the ashes and bones. Most of North America was useless; nothing could be planted, no one could live. A few million people kept going up in Canada and down in South America. But during the second year Soviet parachutists began to drop, a few at first, then more and more. They wore the first really effective anti-radiation equipment; what was left of American production moved to the moon along with the governments.

All but the troops. The remaining troops stayed behind as best they could, a few thousand here, a platoon there. No one knew exactly where they were; they stayed where they could, moving around at night, hiding in ruins, in sewers, cellars, with the rats and snakes. It looked as if the Soviet Union had the war almost won. Except for a handful of projectiles fired off from the moon daily, there was almost no weapon in use against them. They came and went as they pleased. The war, for all practical purposes, was over. Nothing effective opposed them.

And then the first claws appeared. And overnight the complexion of the war changed.

The claws were awkward, at first. Slow. The Ivans knocked them off almost as fast as they crawled out of their underground tunnels. But then they got better, faster and more cunning. Factories, all on Terra, turned them out. Factories a long way under ground, behind the Soviet lines, factories that had once made atomic projectiles, now almost forgotten.

The claws got faster, and they got bigger. New types appeared, some with feelers, some that flew. There were a few jumping kinds.

The best technicians on the moon were working on designs, making them more and more intricate, more flexible. They became uncanny; the Ivans were having a lot of trouble with them. Some of the little claws were learning to hide themselves, burrowing down into the ash, lying in wait.

And then they started getting into the Russian bunkers, slipping down when the lids were raised for air and a look around. One claw inside a bunker, a churning sphere of blades and metal—that was enough. And when one got in others followed. With a weapon like that the war couldn't go on much longer.

Maybe it was already over.

Maybe he was going to hear the news. Maybe the Politburo had decided to throw in the sponge. Too bad it had taken so long. Six years. A long time for war like that, the way they had waged it. The automatic retaliation discs, spinning down all over Russia, hundreds of thousands of them. Bacteria crystals. The Soviet guided missiles, whistling through the air. The chain bombs. And now this, the robots, the claws—

The claws weren't like other weapons. They were *alive*, from any practical standpoint, whether the Governments wanted to admit it or not. They were not machines. They were living things, spinning, creeping, shaking themselves up suddenly from the gray ash and darting toward a man, climbing up him, rushing for his throat. And that was what they had been designed to do. Their job.

They did their job well. Especially lately, with the new designs coming up. Now they repaired themselves. They were on their own. Radiation tabs protected the UN troops, but if a man lost his tab he was fair game for the claws, no matter what his uniform. Down below the surface automatic machinery stamped them out. Human beings stayed a long way off. It was too risky; nobody wanted to be around them. They were left to themselves. And they seemed to be doing all right. The new designs were faster, more complex. More efficient.

Apparently they had won the war.

Major Hendricks lit a second cigarette. The landscape depressed him. Nothing but ash and ruins. He seemed to be alone, the only living thing in the whole world. To the right the ruins of a town rose up, a few walls and heaps of debris. He tossed the dead match away, increasing his pace. Suddenly he stopped, jerking up his gun, his body tense. For a minute it looked like—

From behind the shell of a ruined building a figure came, walking slowly toward him, walking hesitantly.

Hendricks blinked. "Stop!"

The boy stopped. Hendricks lowered his gun. The boy stood silently, looking at him. He was small, not very old. Perhaps eight. But it was hard to tell. Most of the kids who remained were stunted. He wore a faded blue sweater, ragged with dirt, and short pants. His hair was long and matted. Brown hair. It hung over his face and around his ears. He held something in his arms.

"What's that you have?" Hendricks said sharply.

The boy held it out. It was a toy, a bear. A teddy bear. The boy's eyes were large, but without expression.

Hendricks relaxed. "I don't want it. Keep it."

The boy hugged the bear again.

"Where do you live?" Hendricks said.

"In there."

"The ruins?"

"Yes."

"Underground?"

"Yes."

"How many are there?"

"How—how many?"

"How many of you. How big's your settlement?"

The boy did not answer.

Hendricks frowned. "You're not all by yourself, are you?"

The boy nodded.

"How do you stay alive?"

"There's food."

"What kind of food?"

"Different."

Hendricks studied him. "How old are you?"

"Thirteen."

It wasn't possible. Or was it? The boy was thin, stunted. And probably sterile. Radiation exposure, years straight. No wonder he was so small. His arms and legs were like pipecleaners, knobby, and thin. Hendricks touched the boy's arm. His skin was dry and rough; radiation skin. He bent down, looking into the boy's face. There was no expression. Big eyes, big and dark.

"Are you blind?" Hendricks said.

"No. I can see some."

"How do you get away from the claws?"

"The claws?"

"The round things. That run and burrow."

"I don't understand."

Maybe there weren't any claws around. A lot of areas were free. They collected mostly around bunkers, where there were people. The claws had been designed to sense warmth, warmth of living things.

"You're lucky." Hendricks straightened up. "Well? Which way are you going? Back—back there?"

"Can I come with you?"

"With *me*?" Hendricks folded his arms. "I'm going a long way. Miles. I have to hurry." He looked at his watch. "I have to get there by nightfall."

"I want to come."

Hendricks fumbled in his pack. "It isn't worth it. Here." He tossed down the food cans he had with him. "You take these and go back. Okay?"

The boy said nothing.

"I'll be coming back this way. In a day or so. If you're around here when I come back you can come along with me. All right?"

"I want to go with you now."

"It's a long walk."

"I can walk."

Hendricks shifted uneasily. It made too good a target, two people walking along. And the boy would slow him down. But he might not come back this way. And if the boy were really all alone—

"Okay. Come along."

The boy fell in beside him. Hendricks strode along. The boy walked silently, clutching his teddy bear.

"What's your name?" Hendricks said, after a time.

"David Edward Derring."

"David? What—what happened to your mother and father?"

"They died."

"How?"

"In the blast."

"How long ago?"

"Six years."

Hendricks slowed down. "You've been alone six years?"

"No. There were other people for awhile. They went away."

"And you've been alone since?"

"Yes."

Hendricks glanced down. The boy was strange, saying very little. Withdrawn. But that was the way they were, the children who had survived. Quiet. Stoic. A strange kind of fatalism gripped them. Nothing came as a surprise. They accepted anything that came along. There was no longer any *normal*, any natural course of things, moral or physical, for them to expect. Custom, habit, all the determining forces of learning were gone; only brute experience remained.

"Am I walking too fast?" Hendricks said.

"No."

"How did you happen to see me?"

"I was waiting."

"Waiting?" Hendricks was puzzled. "What were you waiting for?"

"To catch things."

"What kind of things?"

"Things to eat."

"Oh." Hendricks set his lips grimly. A thirteen year old boy, living on rats and gophers and half-rotten canned food. Down in a hole under the ruins of a town. With radiation pools and claws, and Russian dive-mines up above, coasting around in the sky.

"Where are we going?" David asked.

"To the Russian lines."

"Russian?"

"The enemy. The people who started the war. They dropped the first radiation bombs. They began all this."

The boy nodded. His face showed no expression.

"I'm an American," Hendricks said.

There was no comment. On they went, the two of them, Hendricks walking a little ahead, David trailing behind him, hugging his dirty teddy bear against his chest.

About four in the afternoon they stopped to eat. Hendricks built a fire in a hollow between some slabs of concrete. He cleared the weeds away and heaped up bits of wood. The Russians' lines were not very far ahead. Around him was what had once been a long valley, acres of fruit trees and grapes. Nothing remained now but a few bleak stumps and the mountains that stretched across the horizon at the far end. And the clouds of rolling ash that blew and drifted with the wind, settling over the weeds and remains of buildings, walls here and there, once in awhile what had been a road.

Hendricks made coffee and heated up some boiled mutton and bread. "Here." He handed bread and mutton to David. David squatted by the edge of the fire, his knees knobby and white. He examined the food and then passed it back, shaking his head.

"No."

"No? Don't you want any?"

"No."

Hendricks shrugged. Maybe the boy was a mutant, used to special food. It didn't matter. When he was hungry he would find something to eat. The boy was strange. But there were many strange changes coming over the world. Life was not the same, anymore. It would never be the same again. The human race was going to have to realize that.

"Suit yourself," Hendricks said. He ate the bread and mutton by himself, washing it down with coffee. He ate slowly, finding the food hard to digest. When he was done he got to his feet and stamped the fire out.

David rose slowly, watching him with his young-old eyes.

"We're going," Hendricks said.

"All right."

Hendricks walked along, his gun in his arms. They were close; he was tense, ready for anything. The Russians should be expecting a runner, an answer to their own runner, but they were tricky. There was always the possibility of a slipup. He scanned the landscape around him. Nothing but slag and ash, a few hills, charred trees. Concrete walls. But someplace ahead was the first bunker of the Russian lines, the forward command. Underground, buried deep, with only a periscope showing, a few gun muzzles. Maybe an antenna.

"Will we be there soon?" David asked.

"Yes. Getting tired?"

"No."

"Why, then?"

David did not answer. He plodded carefully along behind, picking his way over the ash. His legs and shoes were gray with dust. His pinched face was streaked, lines of gray ash in riverlets down the pale white of his skin. There was no color to his face. Typical of the new children, growing up in cellars and sewers and underground shelters.

Hendricks slowed down. He lifted his fieldglasses and studied the ground ahead of him. Were they there, someplace, waiting for him? Watching him, the way his men had watched the Russian runner? A chill went up his back. Maybe they were getting their guns ready, preparing to fire, the way his men had prepared, made ready to kill.

Hendricks stopped, wiping perspiration from his face. "Damn." It made him uneasy. But he should be expected. The situation was different.

He strode over the ash, holding his gun tightly with both hands. Behind him came David. Hendricks peered around, tight-lipped. Any second it might happen. A burst of white light, a blast, carefully aimed from inside a deep concrete bunker.

He raised his arm and waved it around in a circle.

Nothing moved. To the right a long ridge ran, topped with dead tree trunks. A few wild vines had grown up around the trees, remains of arbors. And the eternal dark weeds. Hendricks studied the ridge. Was anything up there?

Perfect place for a lookout. He approached the ridge warily, David coming silently behind. If it were his command he'd have a sentry up there, watching for troops trying to infiltrate into the command area. Of course, if it were his command there would be the claws around the area for full protection.

He stopped, feet apart, hands on his hips.

"Are we there?" David said.

"Almost."

"Why have we stopped?"

"I don't want to take any chances." Hendricks advanced slowly. Now the ridge lay directly beside him, along his right. Overlooking him. His uneasy feeling increased. If an Ivan were up there he wouldn't have a chance. He waved his arm again. They should be expecting someone in the UN uniform, in response to the note capsule. Unless the whole thing was a trap.

"Keep up with me." He turned toward David. "Don't drop behind."

"With you?"

"Up beside me! We're close. We can't take any chances. Come on."

"I'll be all right." David remained behind him, in the rear, a few paces away, still clutching his teddy bear.

"Have it your way." Hendricks raised his glasses again, suddenly tense. For a moment—had something moved? He scanned the ridge carefully. Everything was silent. Dead. No life up there, only tree trunks and ash. Maybe a few rats. The big black rats that had survived the claws. Mutants—built their own shelters out of saliva and ash. Some kind of plaster. Adaptation. He started forward again.

A tall figure came out on the ridge above him, cloak flapping. Gray-green. A Russian. Behind him a second soldier appeared, another Russian. Both lifted their guns, aiming.

Hendricks froze. He opened his mouth. The soldiers were kneeling, sighting down the side of the slope. A third figure had joined them on the ridge top, a smaller figure in gray-green. A woman. She stood behind the other two.

Hendricks found his voice. "Stop!" He waved up at them frantically. "I'm —"

The two Russians fired. Behind Hendricks there was a faint *pop*. Waves of heat lapped against him, throwing him to the ground. Ash tore at his face,

grinding into his eyes and nose. Choking, he pulled himself to his knees. It was all a trap. He was finished. He had come to be killed, like a steer. The soldiers and the woman were coming down the side of the ridge toward him, sliding down through the soft ash. Hendricks was numb. His head throbbed. Awkwardly, he got his rifle up and took aim. It weighed a thousand tons; he could hardly hold it. His nose and cheeks stung. The air was full of the blast smell, a bitter acrid stench.

"Don't fire," the first Russian said, in heavily accented English.

The three of them came up to him, surrounding him. "Put down your rifle, Yank," the other said.

Hendricks was dazed. Everything had happened so fast. He had been caught. And they had blasted the boy. He turned his head. David was gone. What remained of him was strewn across the ground.

The three Russians studied him curiously. Hendricks sat, wiping blood from his nose, picking out bits of ash. He shook his head, trying to clear it. "Why did you do it?" he murmured thickly. "The boy."

"Why?" One of the soldiers helped him roughly to his feet. He turned Hendricks around. "Look."

Hendricks closed his eyes.

"Look!" The two Russians pulled him forward. "See. Hurry up. There isn't much time to spare, Yank!"

Hendricks looked. And gasped.

"See now? Now do you understand?"

From the remains of David a metal wheel rolled. Relays, glinting metal. Parts, wiring. One of the Russians kicked at the heap of remains. Parts popped out, rolling away, wheels and springs and rods. A plastic section fell in, half charred. Hendricks bent shakily down. The front of the head had come off. He could make out the intricate brain, wires and relays, tiny tubes and switches, thousands of minute studs—

"A robot," the soldier holding his arm said. "We watched it tagging you."

"Tagging me?"

"That's their way. They tag along with you. Into the bunker. That's how they get in."

Hendricks blinked, dazed. "But—"

"Come on." They led him toward the ridge. "We can't stay here. It isn't safe. There must be hundreds of them all around here."

The three of them pulled him up the side of the ridge, sliding and slipping on the ash. The woman reached the top and stood waiting for them.

"The forward command," Hendricks muttered. "I came to negotiate with the Soviet—"

"There is no more forward command. *They* got in. We'll explain." They reached the top of the ridge. "We're all that's left. The three of us. The rest were down in the bunker."

"This way. Down this way." The woman unscrewed a lid, a gray manhole cover set in the ground. "Get in."

Hendricks lowered himself. The two soldiers and the woman came behind him, following him down the ladder. The woman closed the lid after them, bolting it tightly into place.

"Good thing we saw you," one of the two soldiers grunted. "It had tagged you about as far as it was going to."

"Give me one of your cigarettes," the woman said. "I haven't had an American cigarette for weeks."

Hendricks pushed the pack to her. She took a cigarette and passed the pack to the two soldiers. In the corner of the small room the lamp gleamed fitfully. The room was low-ceilinged, cramped. The four of them sat around a small wood table. A few dirty dishes were stacked to one side. Behind a ragged curtain a second room was partly visible. Hendricks saw the corner of a cot, some blankets, clothes hung on a hook.

"We were here," the soldier beside him said. He took off his helmet, pushing his blond hair back. "I'm Corporal Rudi Maxer. Polish. Impressed in the Soviet Army two years ago." He held out his hand.

Hendricks hesitated and then shook. "Major Joseph Hendricks."

"Klaus Epstein." The other soldier shook with him, a small dark man with thinning hair. Epstein plucked nervously at his ear. "Austrian. Impressed God knows when. I don't remember. The three of us were here, Rudi and I, with Tasso." He indicated the woman. "That's how we escaped. All the rest were down in the bunker."

"And—and *they* got in?"

Epstein lit a cigarette. "First just one of them. The kind that tagged you. Then it let others in."

Hendricks became alert. "The *kind*? Are there more than one kind?"

"The little boy. David. David holding his teddy bear. That's Variety Three. The most effective."

"What are the other types?"

Epstein reached into his coat. "Here." He tossed a packet of photographs onto the table, tied with a string. "Look for yourself."

Hendricks untied the string.

"You see," Rudi Maxer said, "that was why we wanted to talk terms. The Russians, I mean. We found out about a week ago. Found out that your claws were beginning to make up new designs on their own. New types of their own. Better types. Down in your underground factories behind our lines. You let them stamp themselves, repair themselves. Made them more and more intricate. It's your fault this happened."

Hendricks examined the photos. They had been snapped hurriedly; they were blurred and indistinct. The first few showed—David. David walking along a road, by himself. David and another David. Three Davids. All exactly alike. Each with a ragged teddy bear.

All pathetic.

"Look at the others," Tasso said.

The next pictures, taken at a great distance, showed a towering wounded soldier sitting by the side of a path, his arm in a sling, the stump of one leg extended, a crude crutch on his lap. Then two wounded soldiers, both the same, standing side by side.

"That's Variety One. The Wounded Soldier." Klaus reached out and took the pictures. "You see, the claws were designed to get to human beings. To find them. Each kind was better than the last. They got farther, closer, past most of our defenses, into our lines. But as long as they were merely *machines*, metal spheres with claws and horns, feelers, they could be picked off like any other object. They could be detected as lethal robots as soon as they were seen. Once we caught sight of them—"

"Variety One subverted our whole north wing," Rudi said. "It was a long time before anyone caught on. Then it was too late. They came in, wounded

soldiers, knocking and begging to be let in. So we let them in. And as soon as they were in they took over. We were watching out for machines…."

"At that time it was thought there was only the one type," Klaus Epstein said. "No one suspected there were other types. The pictures were flashed to us. When the runner was sent to you, we knew of just one type. Variety One. The big Wounded Soldier. We thought that was all."

"Your line fell to—"

"To Variety Three. David and his bear. That worked even better." Klaus smiled bitterly. "Soldiers are suckers for children. We brought them in and tried to feed them. We found out the hard way what they were after. At least, those who were in the bunker."

"The three of us were lucky," Rudi said. "Klaus and I were—were visiting Tasso when it happened. This is her place." He waved a big hand around. "This little cellar. We finished and climbed the ladder to start back. From the ridge we saw. There they were, all around the bunker. Fighting was still going on. David and his bear. Hundreds of them. Klaus took the pictures."

Klaus tied up the photographs again.

"And it's going on all along your line?" Hendricks said.

"Yes."

"How about *our* lines?" Without thinking, he touched the tab on his arm. "Can they—"

"They're not bothered by your radiation tabs. It makes no difference to them, Russian, American, Pole, German. It's all the same. They're doing what they were designed to do. Carrying out the original idea. They track down life, wherever they find it."

"They go by warmth," Klaus said. "That was the way you constructed them from the very start. Of course, those you designed were kept back by the radiation tabs you wear. Now they've got around that. These new varieties are lead-lined."

"What's the other variety?" Hendricks asked. "The David type, the Wounded Soldier—what's the other?"

"We don't know." Klaus pointed up at the wall. On the wall were two metal plates, ragged at the edges. Hendricks got up and studied them. They were bent and dented.

"The one on the left came off a Wounded Soldier," Rudi said. "We got one of them. It was going along toward our old bunker. We got it from the ridge, the same way we got the David tagging you."

The plate was stamped: I-V. Hendricks touched the other plate. "And this came from the David type?"

"Yes." The plate was stamped: III-V.

Klaus took a look at them, leaning over Hendricks' broad shoulder. "You can see what we're up against. There's another type. Maybe it was abandoned. Maybe it didn't work. But there must be a Second Variety. There's One and Three."

"You were lucky," Rudi said. "The David tagged you all the way here and never touched you. Probably thought you'd get it into a bunker, somewhere."

"One gets in and it's all over," Klaus said. "They move fast. One lets all the rest inside. They're inflexible. Machines with one purpose. They were built for only one thing." He rubbed sweat from his lip. "We saw."

They were silent.

"Let me have another cigarette, Yank," Tasso said. "They are good. I almost forgot how they were."

It was night. The sky was black. No stars were visible through the rolling clouds of ash. Klaus lifted the lid cautiously so that Hendricks could look out.

Rudi pointed into the darkness. "Over that way are the bunkers. Where we used to be. Not over half a mile from us. It was just chance Klaus and I were not there when it happened. Weakness. Saved by our lusts."

"All the rest must be dead," Klaus said in a low voice. "It came quickly. This morning the Politburo reached their decision. They notified us—forward command. Our runner was sent out at once. We saw him start toward the direction of your lines. We covered him until he was out of sight."

"Alex Radrivsky. We both knew him. He disappeared about six o'clock. The sun had just come up. About noon Klaus and I had an hour relief. We crept off, away from the bunkers. No one was watching. We came here. There used to be a town here, a few houses, a street. This cellar was part of a big farmhouse. We knew Tasso would be here, hiding down in her little place. We had come here before. Others from the bunkers came here. Today happened to be our turn."

"So we were saved," Klaus said. "Chance. It might have been others. We—we finished, and then we came up to the surface and started back along the ridge. That was when we saw them, the Davids. We understood right away. We had seen the photos of the First Variety, the Wounded Soldier. Our Commissar distributed them to us with an explanation. If we had gone another step they would have seen us. As it was we had to blast two Davids before we got back. There were hundreds of them, all around. Like ants. We took pictures and slipped back here, bolting the lid tight."

"They're not so much when you catch them alone. We moved faster than they did. But they're inexorable. Not like living things. They came right at us. And we blasted them."

Major Hendricks rested against the edge of the lid, adjusting his eyes to the darkness. "Is it safe to have the lid up at all?"

"If we're careful. How else can you operate your transmitter?"

Hendricks lifted the small belt transmitter slowly. He pressed it against his ear. The metal was cold and damp. He blew against the mike, raising up the short antenna. A faint hum sounded in his ear. "That's true, I suppose."

But he still hesitated.

"We'll pull you under if anything happens," Klaus said.

"Thanks." Hendricks waited a moment, resting the transmitter against his shoulder. "Interesting, isn't it?"

"What?"

"This, the new types. The new varieties of claws. We're completely at their mercy, aren't we? By now they've probably gotten into the UN lines, too. It makes me wonder if we're not seeing the beginning of a now species. *The* new species. Evolution. The race to come after man."

Rudi grunted. "There is no race after man."

"No? Why not? Maybe we're seeing it now, the end of human beings, the beginning of the new society."

"They're not a race. They're mechanical killers. You made them to destroy. That's all they can do. They're machines with a job."

"So it seems now. But how about later on? After the war is over. Maybe, when there aren't any humans to destroy, their real potentialities will begin to show."

"You talk as if they were alive!"

"Aren't they?"

There was silence. "They're machines," Rudi said. "They look like people, but they're machines."

"Use your transmitter, Major," Klaus said. "We can't stay up here forever."

Holding the transmitter tightly Hendricks called the code of the command bunker. He waited, listening. No response. Only silence. He checked the leads carefully. Everything was in place.

"Scott!" he said into the mike. "Can you hear me?"

Silence. He raised the gain up full and tried again. Only static.

"I don't get anything. They may hear me but they may not want to answer."

"Tell them it's an emergency."

"They'll think I'm being forced to call. Under your direction." He tried again, outlining briefly what he had learned. But still the phone was silent, except for the faint static.

"Radiation pools kill most transmission," Klaus said, after awhile. "Maybe that's it."

Hendricks shut the transmitter up. "No use. No answer. Radiation pools? Maybe. Or they hear me, but won't answer. Frankly, that's what I would do, if a runner tried to call from the Soviet lines. They have no reason to believe such a story. They may hear everything I say—"

"Or maybe it's too late."

Hendricks nodded.

"We better get the lid down," Rudi said nervously. "We don't want to take unnecessary chances."

They climbed slowly back down the tunnel. Klaus bolted the lid carefully into place. They descended into the kitchen. The air was heavy and close around them.

"Could they work that fast?" Hendricks said. "I left the bunker this noon. Ten hours ago. How could they move so quickly?"

"It doesn't take them long. Not after the first one gets in. It goes wild. You know what the little claws can do. Even *one* of these is beyond belief. Razors, each finger. Maniacal."

"All right." Hendricks moved away impatiently. He stood with his back to

them.

"What's the matter?" Rudi said.

"The Moon Base. God, if they've gotten there—"

"The Moon Base?"

Hendricks turned around. "They couldn't have got to the Moon Base. How would they get there? It isn't possible. I can't believe it."

"What is this Moon Base? We've heard rumors, but nothing definite. What is the actual situation? You seem concerned."

"We're supplied from the moon. The governments are there, under the lunar surface. All our people and industries. That's what keeps us going. If they should find some way of getting off Terra, onto the moon—"

"It only takes one of them. Once the first one gets in it admits the others. Hundreds of them, all alike. You should have seen them. Identical. Like ants."

"Perfect socialism," Tasso said. "The ideal of the communist state. All citizens interchangeable."

Klaus grunted angrily. "That's enough. Well? What next?"

Hendricks paced back and forth, around the small room. The air was full of smells of food and perspiration. The others watched him. Presently Tasso pushed through the curtain, into the other room. "I'm going to take a nap."

The curtain closed behind her. Rudi and Klaus sat down at the table, still watching Hendricks.

"It's up to you," Klaus said. "We don't know your situation."

Hendricks nodded.

"It's a problem." Rudi drank some coffee, filling his cup from a rusty pot. "We're safe here for awhile, but we can't stay here forever. Not enough food or supplies."

"But if we go outside—"

"If we go outside they'll get us. Or probably they'll get us. We couldn't go very far. How far is your command bunker, Major?"

"Three or four miles."

"We might make it. The four of us. Four of us could watch all sides. They couldn't slip up behind us and start tagging us. We have three rifles, three blast rifles. Tasso can have my pistol." Rudi tapped his belt. "In the Soviet army we didn't have shoes always, but we had guns. With all four of us armed one of us

might get to your command bunker. Preferably you, Major."

"What if they're already there?" Klaus said.

Rudi shrugged. "Well, then we come back here."

Hendricks stopped pacing. "What do you think the chances are they're already in the American lines?"

"Hard to say. Fairly good. They're organized. They know exactly what they're doing. Once they start they go like a horde of locusts. They have to keep moving, and fast. It's secrecy and speed they depend on. Surprise. They push their way in before anyone has any idea."

"I see," Hendricks murmured.

From the other room Tasso stirred. "Major?"

Hendricks pushed the curtain back. "What?"



http://www.gutenberg.org/files/32032/32032-h/images/illo2.jpg

Tasso looked up at him lazily from the cot. "Have you any more American

cigarettes left?"

Hendricks went into the room and sat down across from her, on a wood stool. He felt in his pockets. "No. All gone."

"Too bad."

"What nationality are you?" Hendricks asked after awhile.

"Russian."

"How did you get here?"

"Here?"

"This used to be France. This was part of Normandy. Did you come with the Soviet army?"

"Why?"

"Just curious." He studied her. She had taken off her coat, tossing it over the end of the cot. She was young, about twenty. Slim. Her long hair stretched out over the pillow. She was staring at him silently, her eyes dark and large.

"What's on your mind?" Tasso said.

"Nothing. How old are you?"

"Eighteen." She continued to watch him, unblinking, her arms behind her head. She had on Russian army pants and shirt. Gray-green. Thick leather belt with counter and cartridges. Medicine kit.

"You're in the Soviet army?"

"No."

"Where did you get the uniform?"

She shrugged. "It was given to me," she told him.

"How—how old were you when you came here?"

"Sixteen."

"That young?"

Her eyes narrowed. "What do you mean?"

Hendricks rubbed his jaw. "Your life would have been a lot different if there had been no war. Sixteen. You came here at sixteen. To live this way."

"I had to survive."

"I'm not moralizing."

"Your life would have been different, too," Tasso murmured. She reached down and unfastened one of her boots. She kicked the boot off, onto the floor. "Major, do you want to go in the other room? I'm sleepy."

"It's going to be a problem, the four of us here. It's going to be hard to live in these quarters. Are there just the two rooms?"

"Yes."

"How big was the cellar originally? Was it larger than this? Are there other rooms filled up with debris? We might be able to open one of them."

"Perhaps. I really don't know." Tasso loosened her belt. She made herself comfortable on the cot, unbuttoning her shirt. "You're sure you have no more cigarettes?"

"I had only the one pack."

"Too bad. Maybe if we get back to your bunker we can find some." The other boot fell. Tasso reached up for the light cord. "Good night."

"You're going to sleep?"

"That's right."

The room plunged into darkness. Hendricks got up and made his way past the curtain, into the kitchen.

And stopped, rigid.

Rudi stood against the wall, his face white and gleaming. His mouth opened and closed but no sounds came. Klaus stood in front of him, the muzzle of his pistol in Rudi's stomach. Neither of them moved. Klaus, his hand tight around his gun, his features set. Rudi, pale and silent, spread-eagled against the wall.

"What—" Hendricks muttered, but Klaus cut him off.

"Be quiet, Major. Come over here. Your gun. Get out your gun."

Hendricks drew his pistol. "What is it?"

"Cover him." Klaus motioned him forward. "Beside me. Hurry!"

Rudi moved a little, lowering his arms. He turned to Hendricks, licking his lips. The whites of his eyes shone wildly. Sweat dripped from his forehead, down his cheeks. He fixed his gaze on Hendricks. "Major, he's gone insane. Stop him." Rudi's voice was thin and hoarse, almost inaudible.

"What's going on?" Hendricks demanded.

Without lowering his pistol Klaus answered. "Major, remember our discussion? The Three Varieties? We knew about One and Three. But we didn't know about Two. At least, we didn't know before." Klaus' fingers tightened around the gun butt. "We didn't know before, but we know now."

He pressed the trigger. A burst of white heat rolled out of the gun, licking

around Rudi.

"Major, this is the Second Variety."

Tasso swept the curtain aside. "Klaus! What did you do?"

Klaus turned from the charred form, gradually sinking down the wall onto the floor. "The Second Variety, Tasso. Now we know. We have all three types identified. The danger is less. I—"

Tasso stared past him at the remains of Rudi, at the blackened, smouldering fragments and bits of cloth. "You killed him."

"Him? *It*, you mean. I was watching. I had a feeling, but I wasn't sure. At least, I wasn't sure before. But this evening I was certain." Klaus rubbed his pistol butt nervously. "We're lucky. Don't you understand? Another hour and it might—"

"You were *certain*?" Tasso pushed past him and bent down, over the steaming remains on the floor. Her face became hard. "Major, see for yourself. Bones. Flesh."

Hendricks bent down beside her. The remains were human remains. Seared flesh, charred bone fragments, part of a skull. Ligaments, viscera, blood. Blood forming a pool against the wall.

"No wheels," Tasso said calmly. She straightened up. "No wheels, no parts, no relays. Not a claw. Not the Second Variety." She folded her arms. "You're going to have to be able to explain this."

Klaus sat down at the table, all the color drained suddenly from his face. He put his head in his hands and rocked back and forth.

"Snap out of it." Tasso's fingers closed over his shoulder. "Why did you do it? Why did you kill him?"

"He was frightened," Hendricks said. "All this, the whole thing, building up around us."

"Maybe."

"What, then? What do you think?"

"I think he may have had a reason for killing Rudi. A good reason."

"What reason?"

"Maybe Rudi learned something."

Hendricks studied her bleak face. "About what?" he asked.

"About him. About Klaus."

Klaus looked up quickly. "You can see what she's trying to say. She thinks I'm the Second Variety. Don't you see, Major? Now she wants you to believe I killed him on purpose. That I'm—"

"Why did you kill him, then?" Tasso said.

"I told you." Klaus shook his head wearily. "I thought he was a claw. I thought I knew."

"Why?"

"I had been watching him. I was suspicious."

"Why?"

"I thought I had seen something. Heard something. I thought I—" He stopped.

"Go on."

"We were sitting at the table. Playing cards. You two were in the other room. It was silent. I thought I heard him—*whirr*."

There was silence.

"Do you believe that?" Tasso said to Hendricks.

"Yes. I believe what he says."

"I don't. I think he killed Rudi for a good purpose." Tasso touched the rifle, resting in the corner of the room. "Major—"

"No." Hendricks shook his head. "Let's stop it right now. One is enough. We're afraid, the way he was. If we kill him we'll be doing what he did to Rudi."

Klaus looked gratefully up at him. "Thanks. I was afraid. You understand, don't you? Now she's afraid, the way I was. She wants to kill me."

"No more killing." Hendricks moved toward the end of the ladder. "I'm going above and try the transmitter once more. If I can't get them we're moving back toward my lines tomorrow morning."

Klaus rose quickly. "I'll come up with you and give you a hand."

The night air was cold. The earth was cooling off. Klaus took a deep breath, filling his lungs. He and Hendricks stepped onto the ground, out of the tunnel. Klaus planted his feet wide apart, the rifle up, watching and listening. Hendricks crouched by the tunnel mouth, tuning the small transmitter.

"Any luck?" Klaus asked presently.

"Not yet."

"Keep trying. Tell them what happened."

Hendricks kept trying. Without success. Finally he lowered the antenna. "It's useless. They can't hear me. Or they hear me and won't answer. Or—"

"Or they don't exist."

"I'll try once more." Hendricks raised the antenna. "Scott, can you hear me? Come in!"

He listened. There was only static. Then, still very faintly—

"This is Scott."

His fingers tightened. "Scott! Is it you?"

"This is Scott."

Klaus squatted down. "Is it your command?"

"Scott, listen. Do you understand? About them, the claws. Did you get my message? Did you hear me?"

"Yes." Faintly. Almost inaudible. He could hardly make out the word.

"You got my message? Is everything all right at the bunker? None of them have got in?"

"Everything is all right."

"Have they tried to get in?"

The voice was weaker.

"No."

Hendricks turned to Klaus. "They're all right."

"Have they been attacked?"

"No." Hendricks pressed the phone tighter to his ear. "Scott, I can hardly hear you. Have you notified the Moon Base? Do they know? Are they alerted?"

No answer.

"Scott! Can you hear me?"

Silence.

Hendricks relaxed, sagging. "Faded out. Must be radiation pools."

Hendricks and Klaus looked at each other. Neither of them said anything. After a time Klaus said, "Did it sound like any of your men? Could you identify the voice?"

"It was too faint."

"You couldn't be certain?"

"No."

"Then it could have been—"

"I don't know. Now I'm not sure. Let's go back down and get the lid closed."

They climbed back down the ladder slowly, into the warm cellar. Klaus bolted the lid behind them. Tasso waited for them, her face expressionless.

"Any luck?" she asked.

Neither of them answered. "Well?" Klaus said at last. "What do you think, Major? Was it your officer, or was it one of *them*?"

"I don't know."

"Then we're just where we were before."

Hendricks stared down at the floor, his jaw set. "We'll have to go. To be sure."

"Anyhow, we have food here for only a few weeks. We'd have to go up after that, in any case."

"Apparently so."

"What's wrong?" Tasso demanded. "Did you get across to your bunker? What's the matter?"

"It may have been one of my men," Hendricks said slowly. "Or it may have been one of *them*. But we'll never know standing here." He examined his watch. "Let's turn in and get some sleep. We want to be up early tomorrow."

"Early?"

"Our best chance to get through the claws should be early in the morning," Hendricks said.

The morning was crisp and clear. Major Hendricks studied the countryside through his fieldglasses.

"See anything?" Klaus said.

"No."

"Can you make out our bunkers?"

"Which way?"

"Here." Klaus took the glasses and adjusted them. "I know where to look." He looked a long time, silently.

Tasso came to the top of the tunnel and stepped up onto the ground. "Anything?"

"No." Klaus passed the glasses back to Hendricks. "They're out of sight. Come on. Let's not stay here."

The three of them made their way down the side of the ridge, sliding in the

soft ash. Across a flat rock a lizard scuttled. They stopped instantly, rigid.

"What was it?" Klaus muttered.

"A lizard."

The lizard ran on, hurrying through the ash. It was exactly the same color as the ash.

"Perfect adaptation," Klaus said. "Proves we were right. Lysenko, I mean."

They reached the bottom of the ridge and stopped, standing close together, looking around them.

"Let's go." Hendricks started off. "It's a good long trip, on foot."

Klaus fell in beside him. Tasso walked behind, her pistol held alertly. "Major, I've been meaning to ask you something," Klaus said. "How did you run across the David? The one that was tagging you."

"I met it along the way. In some ruins."

"What did it say?"

"Not much. It said it was alone. By itself."

"You couldn't tell it was a machine? It talked like a living person? You never suspected?"

"It didn't say much. I noticed nothing unusual.

"It's strange, machines so much like people that you can be fooled. Almost alive. I wonder where it'll end."

"They're doing what you Yanks designed them to do," Tasso said. "You designed them to hunt out life and destroy. Human life. Wherever they find it."

Hendricks was watching Klaus intently. "Why did you ask me? What's on your mind?"

"Nothing," Klaus answered.

"Klaus thinks you're the Second Variety," Tasso said calmly, from behind them. "Now he's got his eye on you."

Klaus flushed. "Why not? We sent a runner to the Yank lines and he comes back. Maybe he thought he'd find some good game here."

Hendricks laughed harshly. "I came from the UN bunkers. There were human beings all around me."

"Maybe you saw an opportunity to get into the Soviet lines. Maybe you saw your chance. Maybe you—"

"The Soviet lines had already been taken over. Your lines had been

invaded before I left my command bunker. Don't forget that."

Tasso came up beside him. "That proves nothing at all, Major."

"Why not?"

"There appears to be little communication between the varieties. Each is made in a different factory. They don't seem to work together. You might have started for the Soviet lines without knowing anything about the work of the other varieties. Or even what the other varieties were like."

"How do you know so much about the claws?" Hendricks said.

"I've seen them. I've observed them. I observed them take over the Soviet bunkers."

"You know quite a lot," Klaus said. "Actually, you saw very little. Strange that you should have been such an acute observer."

Tasso laughed. "Do you suspect me, now?"

"Forget it," Hendricks said. They walked on in silence.

"Are we going the whole way on foot?" Tasso said, after awhile. "I'm not used to walking." She gazed around at the plain of ash, stretching out on all sides of them, as far as they could see. "How dreary."

"It's like this all the way," Klaus said.

"In a way I wish you had been in your bunker when the attack came."

"Somebody else would have been with you, if not me," Klaus muttered.

Tasso laughed, putting her hands in her pockets. "I suppose so."

They walked on, keeping their eyes on the vast plain of silent ash around them.

The sun was setting. Hendricks made his way forward slowly, waving Tasso and Klaus back. Klaus squatted down, resting his gun butt against the ground.

Tasso found a concrete slab and sat down with a sigh. "It's good to rest."

"Be quiet," Klaus said sharply.

Hendricks pushed up to the top of the rise ahead of them. The same rise the Russian runner had come up, the day before. Hendricks dropped down, stretching himself out, peering through his glasses at what lay beyond.

Nothing was visible. Only ash and occasional trees. But there, not more than fifty yards ahead, was the entrance of the forward command bunker. The bunker from which he had come. Hendricks watched silently. No motion. No sign of life. Nothing stirred.

Klaus slithered up beside him. "Where is it?"

"Down there." Hendricks passed him the glasses. Clouds of ash rolled across the evening sky. The world was darkening. They had a couple of hours of light left, at the most. Probably not that much.

"I don't see anything," Klaus said.

"That tree there. The stump. By the pile of bricks. The entrance is to the right of the bricks."

"I'll have to take your word for it."

"You and Tasso cover me from here. You'll be able to sight all the way to the bunker entrance."

"You're going down alone?"

"With my wrist tab I'll be safe. The ground around the bunker is a living field of claws. They collect down in the ash. Like crabs. Without tabs you wouldn't have a chance."

"Maybe you're right."

"I'll walk slowly all the way. As soon as I know for certain—"

"If they're down inside the bunker you won't be able to get back up here. They go fast. You don't realize."

"What do you suggest?"

Klaus considered. "I don't know. Get them to come up to the surface. So you can see."

Hendricks brought his transmitter from his belt, raising the antenna. "Let's get started."

Klaus signalled to Tasso. She crawled expertly up the side of the rise to where they were sitting.

"He's going down alone," Klaus said. "We'll cover him from here. As soon as you see him start back, fire past him at once. They come quick."

"You're not very optimistic," Tasso said.

"No, I'm not."

Hendricks opened the breech of his gun, checking it carefully. "Maybe things are all right."

"You didn't see them. Hundreds of them. All the same. Pouring out like ants."

"I should be able to find out without going down all the way." Hendricks

locked his gun, gripping it in one hand, the transmitter in the other. "Well, wish me luck."

Klaus put out his hand. "Don't go down until you're sure. Talk to them from up here. Make them show themselves."

Hendricks stood up. He stepped down the side of the rise.

A moment later he was walking slowly toward the pile of bricks and debris beside the dead tree stump. Toward the entrance of the forward command bunker.

Nothing stirred. He raised the transmitter, clicking it on. "Scott? Can you hear me?"

Silence.

"Scott! This is Hendricks. Can you hear me? I'm standing outside the bunker. You should be able to see me in the view sight."

He listened, the transmitter gripped tightly. No sound. Only static. He walked forward. A claw burrowed out of the ash and raced toward him. It halted a few feet away and then slunk off. A second claw appeared, one of the big ones with feelers. It moved toward him, studied him intently, and then fell in behind him, dogging respectfully after him, a few paces away. A moment later a second big claw joined it. Silently, the claws trailed him, as he walked slowly toward the bunker.

Hendricks stopped, and behind him, the claws came to a halt. He was close, now. Almost to the bunker steps.

"Scott! Can you hear me? I'm standing right above you. Outside. On the surface. Are you picking me up?"

He waited, holding his gun against his side, the transmitter tightly to his ear. Time passed. He strained to hear, but there was only silence. Silence, and faint static.

Then, distantly, metallically—

"This is Scott."

The voice was neutral. Cold. He could not identify it. But the earphone was minute.

"Scott! Listen. I'm standing right above you. I'm on the surface, looking down into the bunker entrance."

"Yes."

"Can you see me?"

"Yes."

"Through the view sight? You have the sight trained on me?"

"Yes."

Hendricks pondered. A circle of claws waited quietly around him, gray-metal bodies on all sides of him. "Is everything all right in the bunker? Nothing unusual has happened?"

"Everything is all right."

"Will you come up to the surface? I want to see you for a moment." Hendricks took a deep breath. "Come up here with me. I want to talk to you."

"Come down."

"I'm giving you an order."

Silence.

"Are you coming?" Hendricks listened. There was no response. "I order you to come to the surface."

"Come down."

Hendricks set his jaw. "Let me talk to Leone."

There was a long pause. He listened to the static. Then a voice came, hard, thin, metallic. The same as the other. "This is Leone."

"Hendricks. I'm on the surface. At the bunker entrance. I want one of you to come up here."

"Come down."

"Why come down? I'm giving you an order!"

Silence. Hendricks lowered the transmitter. He looked carefully around him. The entrance was just ahead. Almost at his feet. He lowered the antenna and fastened the transmitter to his belt. Carefully, he gripped his gun with both hands. He moved forward, a step at a time. If they could see him they knew he was starting toward the entrance. He closed his eyes a moment.

Then he put his foot on the first step that led downward.

Two Davids came up at him, their faces identical and expressionless. He blasted them into particles. More came rushing silently up, a whole pack of them. All exactly the same.

Hendricks turned and raced back, away from the bunker, back toward the rise.

At the top of the rise Tasso and Klaus were firing down. The small claws were already streaking up toward them, shining metal spheres going fast, racing frantically through the ash. But he had no time to think about that. He knelt down, aiming at the bunker entrance, gun against his cheek. The Davids were coming out in groups, clutching their teddy bears, their thin knobby legs pumping as they ran up the steps to the surface. Hendricks fired into the main body of them. They burst apart, wheels and springs flying in all directions. He fired again through the mist of particles.

A giant lumbering figure rose up in the bunker entrance, tall and swaying. Hendricks paused, amazed. A man, a soldier. With one leg, supporting himself with a crutch.

"Major!" Tasso's voice came. More firing. The huge figure moved forward, Davids swarming around it. Hendricks broke out of his freeze. The First Variety. The Wounded Soldier.

He aimed and fired. The soldier burst into bits, parts and relays flying. Now many Davids were out on the flat ground, away from the bunker. He fired again and again, moving slowly back, half-crouching and aiming.

From the rise, Klaus fired down. The side of the rise was alive with claws making their way up. Hendricks retreated toward the rise, running and crouching. Tasso had left Klaus and was circling slowly to the right, moving away from the rise.

A David slipped up toward him, its small white face expressionless, brown hair hanging down in its eyes. It bent over suddenly, opening its arms. Its teddy bear hurtled down and leaped across the ground, bounding toward him. Hendricks fired. The bear and the David both dissolved. He grinned, blinking. It was like a dream.

"Up here!" Tasso's voice. Hendricks made his way toward her. She was over by some columns of concrete, walls of a ruined building. She was firing past him, with the hand pistol Klaus had given her.

"Thanks." He joined her, grasping for breath. She pulled him back, behind the concrete, fumbling at her belt.

"Close your eyes!" She unfastened a globe from her waist. Rapidly, she unscrewed the cap, locking it into place. "Close your eyes and get down."

She threw the bomb. It sailed in an arc, an expert, rolling and bouncing to

the entrance of the bunker. Two Wounded Soldiers stood uncertainly by the brick pile. More Davids poured from behind them, out onto the plain. One of the Wounded Soldiers moved toward the bomb, stooping awkwardly down to pick it up.

The bomb went off. The concussion whirled Hendricks around, throwing him on his face. A hot wind rolled over him. Dimly he saw Tasso standing behind the columns, firing slowly and methodically at the Davids coming out of the raging clouds of white fire.

Back along the rise Klaus struggled with a ring of claws circling around him. He retreated, blasting at them and moving back, trying to break through the ring.

Hendricks struggled to his feet. His head ached. He could hardly see. Everything was licking at him, raging and whirling. His right arm would not move.

Tasso pulled back toward him. "Come on. Let's go."

"Klaus—He's still up there."

"Come on!" Tasso dragged Hendricks back, away from the columns. Hendricks shook his head, trying to clear it. Tasso led him rapidly away, her eyes intense and bright, watching for claws that had escaped the blast.

One David came out of the rolling clouds of flame. Tasso blasted it. No more appeared.

"But Klaus. What about him?" Hendricks stopped, standing unsteadily. "He—"

"Come on!"

They retreated, moving farther and farther away from the bunker. A few small claws followed them for a little while and then gave up, turning back and going off.

At last Tasso stopped. "We can stop here and get our breaths."

Hendricks sat down on some heaps of debris. He wiped his neck, gasping. "We left Klaus back there."

Tasso said nothing. She opened her gun, sliding a fresh round of blast cartridges into place.

Hendricks stared at her, dazed. "You left him back there on purpose."

Tasso snapped the gun together. She studied the heaps of rubble around

them, her face expressionless. As if she were watching for something.

"What is it?" Hendricks demanded. "What are you looking for? Is something coming?" He shook his head, trying to understand. What was she doing? What was she waiting for? He could see nothing. Ash lay all around them, ash and ruins. Occasional stark tree trunks, without leaves or branches. "What—"

Tasso cut him off. "Be still." Her eyes narrowed. Suddenly her gun came up. Hendricks turned, following her gaze.

Back the way they had come a figure appeared. The figure walked unsteadily toward them. Its clothes were torn. It limped as it made its way along, going very slowly and carefully. Stopping now and then, resting and getting its strength. Once it almost fell. It stood for a moment, trying to steady itself. Then it came on.

Klaus.

Hendricks stood up. "Klaus!" He started toward him. "How the hell did you —"

Tasso fired. Hendricks swung back. She fired again, the blast passing him, a searing line of heat. The beam caught Klaus in the chest. He exploded, gears and wheels flying. For a moment he continued to walk. Then he swayed back and forth. He crashed to the ground, his arms flung out. A few more wheels rolled away.

Silence.

Tasso turned to Hendricks. "Now you understand why he killed Rudi."

Hendricks sat down again slowly. He shook his head. He was numb. He could not think.

"Do you see?" Tasso said. "Do you understand?"

Hendricks said nothing. Everything was slipping away from him, faster and faster. Darkness, rolling and plucking at him.

He closed his eyes.

Hendricks opened his eyes slowly. His body ached all over. He tried to sit up but needles of pain shot through his arm and shoulder. He gasped.

"Don't try to get up," Tasso said. She bent down, putting her cold hand against his forehead.

It was night. A few stars glinted above, shining through the drifting clouds

of ash. Hendricks lay back, his teeth locked. Tasso watched him impassively. She had built a fire with some wood and weeds. The fire licked feebly, hissing at a metal cup suspended over it. Everything was silent. Unmoving darkness, beyond the fire.

"So he was the Second Variety," Hendricks murmured.

"I had always thought so."

"Why didn't you destroy him sooner?" he wanted to know.

"You held me back." Tasso crossed to the fire to look into the metal cup. "Coffee. It'll be ready to drink in awhile."

She came back and sat down beside him. Presently she opened her pistol and began to disassemble the firing mechanism, studying it intently.

"This is a beautiful gun," Tasso said, half-aloud. "The construction is superb."

"What about them? The claws."

"The concussion from the bomb put most of them out of action. They're delicate. Highly organized, I suppose."

"The Davids, too?"

"Yes."

"How did you happen to have a bomb like that?"

Tasso shrugged. "We designed it. You shouldn't underestimate our technology, Major. Without such a bomb you and I would no longer exist."

"Very useful."

Tasso stretched out her legs, warming her feet in the heat of the fire. "It surprised me that you did not seem to understand, after he killed Rudi. Why did you think he—"

"I told you. I thought he was afraid."

"Really? You know, Major, for a little while I suspected you. Because you wouldn't let me kill him. I thought you might be protecting him." She laughed.

"Are we safe here?" Hendricks asked presently.

"For awhile. Until they get reinforcements from some other area." Tasso began to clean the interior of the gun with a bit of rag. She finished and pushed the mechanism back into place. She closed the gun, running her finger along the barrel.

"We were lucky," Hendricks murmured.

"Yes. Very lucky."

"Thanks for pulling me away."

Tasso did not answer. She glanced up at him, her eyes bright in the fire light. Hendricks examined his arm. He could not move his fingers. His whole side seemed numb. Down inside him was a dull steady ache.

"How do you feel?" Tasso asked.

"My arm is damaged."

"Anything else?"

"Internal injuries."

"You didn't get down when the bomb went off."

Hendricks said nothing. He watched Tasso pour the coffee from the cup into a flat metal pan. She brought it over to him.

"Thanks." He struggled up enough to drink. It was hard to swallow. His insides turned over and he pushed the pan away. "That's all I can drink now."

Tasso drank the rest. Time passed. The clouds of ash moved across the dark sky above them. Hendricks rested, his mind blank. After awhile he became aware that Tasso was standing over him, gazing down at him.

"What is it?" he murmured.

"Do you feel any better?"

"Some."

"You know, Major, if I hadn't dragged you away they would have got you. You would be dead. Like Rudi."

"I know."

"Do you want to know why I brought you out? I could have left you. I could have left you there."

"Why did you bring me out?"

"Because we have to get away from here." Tasso stirred the fire with a stick, peering calmly down into it. "No human being can live here. When their reinforcements come we won't have a chance. I've pondered about it while you were unconscious. We have perhaps three hours before they come."

"And you expect me to get us away?"

"That's right. I expect you to get us out of here."

"Why me?"

"Because I don't know any way." Her eyes shone at him in the half-light,

bright and steady. "If you can't get us out of here they'll kill us within three hours. I see nothing else ahead. Well, Major? What are you going to do? I've been waiting all night. While you were unconscious I sat here, waiting and listening. It's almost dawn. The night is almost over."

Hendricks considered. "It's curious," he said at last.

"Curious?"

"That you should think I can get us out of here. I wonder what you think I can do."

"Can you get us to the Moon Base?"

"The Moon Base? How?"

"There must be some way."

Hendricks shook his head. "No. There's no way that I know of."

Tasso said nothing. For a moment her steady gaze wavered. She ducked her head, turning abruptly away. She scrambled to her feet. "More coffee?"

"No."

"Suit yourself." Tasso drank silently. He could not see her face. He lay back against the ground, deep in thought, trying to concentrate. It was hard to think. His head still hurt. And the numbing daze still hung over him.

"There might be one way," he said suddenly.

"Oh?"

"How soon is dawn?"

"Two hours. The sun will be coming up shortly."

"There's supposed to be a ship near here. I've never seen it. But I know it exists."

"What kind of a ship?" Her voice was sharp.

"A rocket cruiser."

"Will it take us off? To the Moon Base?"

"It's supposed to. In case of emergency." He rubbed his forehead.

"What's wrong?"

"My head. It's hard to think. I can hardly—hardly concentrate. The bomb."

"Is the ship near here?" Tasso slid over beside him, settling down on her haunches. "How far is it? Where is it?"

"I'm trying to think."

Her fingers dug into his arm. "Nearby?" Her voice was like iron. "Where

would it be? Would they store it underground? Hidden underground?"

"Yes. In a storage locker."

"How do we find it? Is it marked? Is there a code marker to identify it?"

Hendricks concentrated. "No. No markings. No code symbol."

"What, then?"

"A sign."

"What sort of sign?"

Hendricks did not answer. In the flickering light his eyes were glazed, two sightless orbs. Tasso's fingers dug into his arm.

"What sort of sign? What is it?"

"I—I can't think. Let me rest."

"All right." She let go and stood up. Hendricks lay back against the ground, his eyes closed. Tasso walked away from him, her hands in her pockets. She kicked a rock out of her way and stood staring up at the sky. The night blackness was already beginning to fade into gray. Morning was coming.

Tasso gripped her pistol and walked around the fire in a circle, back and forth. On the ground Major Hendricks lay, his eyes closed, unmoving. The grayness rose in the sky, higher and higher. The landscape became visible, fields of ash stretching out in all directions. Ash and ruins of buildings, a wall here and there, heaps of concrete, the naked trunk of a tree.

The air was cold and sharp. Somewhere a long way off a bird made a few bleak sounds.

Hendricks stirred. He opened his eyes. "Is it dawn? Already?"

"Yes."

Hendricks sat up a little. "You wanted to know something. You were asking me."

"Do you remember now?"

"Yes."

"What is it?" She tensed. "What?" she repeated sharply.

"A well. A ruined well. It's in a storage locker under a well."

"A well." Tasso relaxed. "Then we'll find a well." She looked at her watch. "We have about an hour, Major. Do you think we can find it in an hour?"

"Give me a hand up," Hendricks said.

Tasso put her pistol away and helped him to his feet. "This is going to be

difficult."

"Yes it is." Hendricks set his lips tightly. "I don't think we're going to go very far."

They began to walk. The early sun cast a little warmth down on them. The land was flat and barren, stretching out gray and lifeless as far as they could see. A few birds sailed silently, far above them, circling slowly.

"See anything?" Hendricks said. "Any claws?"

"No. Not yet."

They passed through some ruins, upright concrete and bricks. A cement foundation. Rats scuttled away. Tasso jumped back warily.

"This used to be a town," Hendricks said. "A village. Provincial village. This was all grape country, once. Where we are now."

They came onto a ruined street, weeds and cracks criss-crossing it. Over to the right a stone chimney stuck up.

"Be careful," he warned her.

A pit yawned, an open basement. Ragged ends of pipes jutted up, twisted and bent. They passed part of a house, a bathtub turned on its side. A broken chair. A few spoons and bits of china dishes. In the center of the street the ground had sunk away. The depression was filled with weeds and debris and bones.

"Over here," Hendricks murmured.

"This way?"

"To the right."

They passed the remains of a heavy duty tank. Hendricks' belt counter clicked ominously. The tank had been radiation blasted. A few feet from the tank a mummified body lay sprawled out, mouth open. Beyond the road was a flat field. Stones and weeds, and bits of broken glass.

"There," Hendricks said.

A stone well jutted up, sagging and broken. A few boards lay across it. Most of the well had sunk into rubble. Hendricks walked unsteadily toward it, Tasso beside him.

"Are you certain about this?" Tasso said. "This doesn't look like anything."

"I'm sure." Hendricks sat down at the edge of the well, his teeth locked. His breath came quickly. He wiped perspiration from his face. "This was

arranged so the senior command officer could get away. If anything happened. If the bunker fell."

"That was you?"

"Yes."

"Where is the ship? Is it here?"

"We're standing on it." Hendricks ran his hands over the surface of the well stones. "The eye-lock responds to me, not to anybody else. It's my ship. Or it was supposed to be."

There was a sharp click. Presently they heard a low grating sound from below them.

"Step back," Hendricks said. He and Tasso moved away from the well.

A section of the ground slid back. A metal frame pushed slowly up through the ash, shoving bricks and weeds out of the way. The action ceased, as the ship nosed into view.

"There it is," Hendricks said.

The ship was small. It rested quietly, suspended in its mesh frame, like a blunt needle. A rain of ash sifted down into the dark cavity from which the ship had been raised. Hendricks made his way over to it. He mounted the mesh and unscrewed the hatch, pulling it back. Inside the ship the control banks and the pressure seat were visible.

Tasso came and stood beside him, gazing into the ship. "I'm not accustomed to rocket piloting," she said, after awhile.

Hendricks glanced at her. "I'll do the piloting."

"Will you? There's only one seat, Major. I can see it's built to carry only a single person."

Hendricks' breathing changed. He studied the interior of the ship intently. Tasso was right. There was only one seat. The ship was built to carry only one person. "I see," he said slowly. "And the one person is you."

She nodded.

"Of course."

"Why?"

"*You* can't go. You might not live through the trip. You're injured. You probably wouldn't get there."

"An interesting point. But you see, I know where the Moon Base is. And

you don't. You might fly around for months and not find it. It's well hidden. Without knowing what to look for—"

"I'll have to take my chances. Maybe I won't find it. Not by myself. But I think you'll give me all the information I need. Your life depends on it."

"How?"

"If I find the Moon Base in time, perhaps I can get them to send a ship back to pick you up. *If* I find the Base in time. If not, then you haven't a chance. I imagine there are supplies on the ship. They will last me long enough—"

Hendricks moved quickly. But his injured arm betrayed him. Tasso ducked, sliding lithely aside. Her hand came up, lightning fast. Hendricks saw the gun butt coming. He tried to ward off the blow, but she was too fast. The metal butt struck against the side of his head, just above his ear. Numbing pain rushed through him. Pain and rolling clouds of blackness. He sank down, sliding to the ground.

Dimly, he was aware that Tasso was standing over him, kicking him with her toe.

"Major! Wake up."

He opened his eyes, groaning.

"Listen to me." She bent down, the gun pointed at his face. "I have to hurry. There isn't much time left. The ship is ready to go, but you must tell me the information I need before I leave."

Hendricks shook his head, trying to clear it.

"Hurry up! Where is the Moon Base? How do I find it? What do I look for?"

Hendricks said nothing.

"Answer me!"

"Sorry."

"Major, the ship is loaded with provisions. I can coast for weeks. I'll find the Base eventually. And in a half hour you'll be dead. Your only chance of survival—" She broke off.

Along the slope, by some crumbling ruins, something moved. Something in the ash. Tasso turned quickly, aiming. She fired. A puff of flame leaped. Something scuttled away, rolling across the ash. She fired again. The claw burst apart, wheels flying.

"See?" Tasso said. "A scout. It won't be long."

"You'll bring them back here to get me?"

"Yes. As soon as possible."

Hendricks looked up at her. He studied her intently. "You're telling the truth?" A strange expression had come over his face, an avid hunger. "You will come back for me? You'll get me to the Moon Base?"

"I'll get you to the Moon Base. But tell me where it is! There's only a little time left."

"All right." Hendricks picked up a piece of rock, pulling himself to a sitting position. "Watch."

Hendricks began to scratch in the ash. Tasso stood by him, watching the motion of the rock. Hendricks was sketching a crude lunar map.

"This is the Appenine range. Here is the Crater of Archimedes. The Moon Base is beyond the end of the Appenine, about two hundred miles. I don't know exactly where. No one on Terra knows. But when you're over the Appenine, signal with one red flare and a green flare, followed by two red flares in quick succession. The Base monitor will record your signal. The Base is under the surface, of course. They'll guide you down with magnetic grapples."

"And the controls? Can I operate them?"

"The controls are virtually automatic. All you have to do is give the right signal at the right time."

"I will."

"The seat absorbs most of the take-off shock. Air and temperature are automatically controlled. The ship will leave Terra and pass out into free space. It'll line itself up with the moon, falling into an orbit around it, about a hundred miles above the surface. The orbit will carry you over the Base. When you're in the region of the Appenine, release the signal rockets."

Tasso slid into the ship and lowered herself into the pressure seat. The arm locks folded automatically around her. She fingered the controls. "Too bad you're not going, Major. All this put here for you, and you can't make the trip."

"Leave me the pistol."

Tasso pulled the pistol from her belt. She held it in her hand, weighing it thoughtfully. "Don't go too far from this location. It'll be hard to find you, as it is."

"No. I'll stay here by the well."

Tasso gripped the take-off switch, running her fingers over the smooth metal. "A beautiful ship, Major. Well built. I admire your workmanship. You people have always done good work. You build fine things. Your work, your creations, are your greatest achievement."

"Give me the pistol," Hendricks said impatiently, holding out his hand. He struggled to his feet.

"Good-bye, Major." Tasso tossed the pistol past Hendricks. The pistol clattered against the ground, bouncing and rolling away. Hendricks hurried after it. He bent down, snatching it up.

The hatch of the ship clanged shut. The bolts fell into place. Hendricks made his way back. The inner door was being sealed. He raised the pistol unsteadily.

There was a shattering roar. The ship burst up from its metal cage, fusing the mesh behind it. Hendricks cringed, pulling back. The ship shot up into the rolling clouds of ash, disappearing into the sky.

Hendricks stood watching a long time, until even the streamer had dissipated. Nothing stirred. The morning air was chill and silent. He began to walk aimlessly back the way they had come. Better to keep moving around. It would be a long time before help came—if it came at all.

He searched his pockets until he found a package of cigarettes. He lit one grimly. They had all wanted cigarettes from him. But cigarettes were scarce.

A lizard slithered by him, through the ash. He halted, rigid. The lizard disappeared. Above, the sun rose higher in the sky. Some flies landed on a flat rock to one side of him. Hendricks kicked at them with his foot.

It was getting hot. Sweat trickled down his face, into his collar. His mouth was dry.

Presently he stopped walking and sat down on some debris. He unfastened his medicine kit and swallowed a few narcotic capsules. He looked around him. Where was he?

Something lay ahead. Stretched out on the ground. Silent and unmoving.

Hendricks drew his gun quickly. It looked like a man. Then he remembered. It was the remains of Klaus. The Second Variety. Where Tasso had blasted him. He could see wheels and relays and metal parts, strewn around on the ash. Glittering and sparkling in the sunlight.

Hendricks got to his feet and walked over. He nudged the inert form with his foot, turning it over a little. He could see the metal hull, the aluminum ribs and struts. More wiring fell out. Like viscera. Heaps of wiring, switches and relays. Endless motors and rods.

He bent down. The brain cage had been smashed by the fall. The artificial brain was visible. He gazed at it. A maze of circuits. Miniature tubes. Wires as fine as hair. He touched the brain cage. It swung aside. The type plate was visible. Hendricks studied the plate.

And blanched.

IV—IV.

For a long time he stared at the plate. Fourth Variety. Not the Second. They had been wrong. There were more types. Not just three. Many more, perhaps. At least four. And Klaus wasn't the Second Variety.

But if Klaus wasn't the Second Variety—

Suddenly he tensed. Something was coming, walking through the ash beyond the hill. What was it? He strained to see. Figures. Figures coming slowly along, making their way through the ash.

Coming toward him.

Hendricks crouched quickly, raising his gun. Sweat dripped down into his eyes. He fought down rising panic, as the figures neared.

The first was a David. The David saw him and increased its pace. The others hurried behind it. A second David. A third. Three Davids, all alike, coming toward him silently, without expression, their thin legs rising and falling. Clutching their teddy bears.

He aimed and fired. The first two Davids dissolved into particles. The third came on. And the figure behind it. Climbing silently toward him across the gray ash. A Wounded Soldier, towering over the David. And—

And behind the Wounded Soldier came two Tassos, walking side by side. Heavy belt, Russian army pants, shirt, long hair. The familiar figure, as he had seen her only a little while before. Sitting in the pressure seat of the ship. Two slim, silent figures, both identical.

They were very near. The David bent down suddenly, dropping its teddy bear. The bear raced across the ground. Automatically, Hendricks' fingers tightened around the trigger. The bear was gone, dissolved into mist. The two

Tasso Types moved on, expressionless, walking side by side, through the gray ash.

When they were almost to him, Hendricks raised the pistol waist high and fired.

The two Tassos dissolved. But already a new group was starting up the rise, five or six Tassos, all identical, a line of them coming rapidly toward him.

And he had given her the ship and the signal code. Because of him she was on her way to the moon, to the Moon Base. He had made it possible.

He had been right about the bomb, after all. It had been designed with knowledge of the other types, the David Type and the Wounded Soldier Type. And the Klaus Type. Not designed by human beings. It had been designed by one of the underground factories, apart from all human contact.

The line of Tassos came up to him. Hendricks braced himself, watching them calmly. The familiar face, the belt, the heavy shirt, the bomb carefully in place.

The bomb—

As the Tassos reached for him, a last ironic thought drifted through Hendricks' mind. He felt a little better, thinking about it. The bomb. Made by the Second Variety to destroy the other varieties. Made for that end alone.

They were already beginning to design weapons to use against each other.

LOOKING BACKWARD: FROM 2000 TO 1887



by Edward Bellamy

AUTHOR'S PREFACE

HISTORICAL SECTION SHAWMUT COLLEGE, BOSTON, DECEMBER 26, 2000

Living as we do in the closing year of the twentieth century, enjoying the blessings of a social order at once so simple and logical that it seems but the triumph of common sense, it is no doubt difficult for those whose studies have not been largely historical to realize that the present organization of society is, in its completeness, less than a century old. No historical fact is, however, better established than that till nearly the end of the nineteenth century it was the general belief that the ancient industrial system, with all its shocking social consequences, was destined to last, with possibly a little patching, to the end of time. How strange and wellnigh incredible does it seem that so prodigious a moral and material transformation as has taken place since then could have been accomplished in so brief an interval! The readiness with which men accustom themselves, as matters of course, to improvements in their condition, which, when anticipated, seemed to leave nothing more to be desired, could not be more strikingly illustrated. What reflection could be better calculated to moderate the enthusiasm of reformers who count for their reward on the lively gratitude of future ages!

The object of this volume is to assist persons who, while desiring to gain a more definite idea of the social contrasts between the nineteenth and twentieth centuries, are daunted by the formal aspect of the histories which treat the subject. Warned by a teacher's experience that learning is accounted a weariness to the flesh, the author has sought to alleviate the instructive quality of the book by casting it in the form of a romantic narrative, which he would be glad to fancy not wholly devoid of interest on its own account.

The reader, to whom modern social institutions and their underlying principles are matters of course, may at times find Dr. Leete's explanations of them rather trite—but it must be remembered that to Dr. Leete's guest they were not matters of course, and that this book is written for the express purpose of inducing the reader to forget for the nonce that they are so to him. One word

more. The almost universal theme of the writers and orators who have celebrated this bimillennial epoch has been the future rather than the past, not the advance that has been made, but the progress that shall be made, ever onward and upward, till the race shall achieve its ineffable destiny. This is well, wholly well, but it seems to me that nowhere can we find more solid ground for daring anticipations of human development during the next one thousand years, than by "Looking Backward" upon the progress of the last one hundred.

That this volume may be so fortunate as to find readers whose interest in the subject shall incline them to overlook the deficiencies of the treatment is the hope in which the author steps aside and leaves Mr. Julian West to speak for himself.

CHAPTER 1

I first saw the light in the city of Boston in the year 1857. "What!" you say, "eighteen fifty-seven? That is an odd slip. He means nineteen fifty-seven, of course." I beg pardon, but there is no mistake. It was about four in the afternoon of December the 26th, one day after Christmas, in the year 1857, not 1957, that I first breathed the east wind of Boston, which, I assure the reader, was at that remote period marked by the same penetrating quality characterizing it in the present year of grace, 2000.

These statements seem so absurd on their face, especially when I add that I am a young man apparently of about thirty years of age, that no person can be blamed for refusing to read another word of what promises to be a mere imposition upon his credulity. Nevertheless I earnestly assure the reader that no imposition is intended, and will undertake, if he shall follow me a few pages, to entirely convince him of this. If I may, then, provisionally assume, with the pledge of justifying the assumption, that I know better than the reader when I was born, I will go on with my narrative. As every schoolboy knows, in the latter part of the nineteenth century the civilization of to-day, or anything like it, did not exist, although the elements which were to develop it were already in ferment. Nothing had, however, occurred to modify the immemorial division of society into the four classes, or nations, as they may be more fitly called, since the differences between them were far greater than those between any nations nowadays, of the rich and the poor, the educated and the ignorant. I myself was rich and also educated, and possessed, therefore, all the elements of happiness enjoyed by the most fortunate in that age. Living in luxury, and occupied only with the pursuit of the pleasures and refinements of life, I derived the means of my support from the labor of others, rendering no sort of service in return. My parents and grand-parents had lived in the same way, and I expected that my descendants, if I had any, would enjoy a like easy existence.

But how could I live without service to the world? you ask. Why should the world have supported in utter idleness one who was able to render service? The answer is that my great-grandfather had accumulated a sum of money on which his descendants had ever since lived. The sum, you will naturally infer, must have been very large not to have been exhausted in supporting three generations

in idleness. This, however, was not the fact. The sum had been originally by no means large. It was, in fact, much larger now that three generations had been supported upon it in idleness, than it was at first. This mystery of use without consumption, of warmth without combustion, seems like magic, but was merely an ingenious application of the art now happily lost but carried to great perfection by your ancestors, of shifting the burden of one's support on the shoulders of others. The man who had accomplished this, and it was the end all sought, was said to live on the income of his investments. To explain at this point how the ancient methods of industry made this possible would delay us too much. I shall only stop now to say that interest on investments was a species of tax in perpetuity upon the product of those engaged in industry which a person possessing or inheriting money was able to levy. It must not be supposed that an arrangement which seems so unnatural and preposterous according to modern notions was never criticized by your ancestors. It had been the effort of lawgivers and prophets from the earliest ages to abolish interest, or at least to limit it to the smallest possible rate. All these efforts had, however, failed, as they necessarily must so long as the ancient social organizations prevailed. At the time of which I write, the latter part of the nineteenth century, governments had generally given up trying to regulate the subject at all.

By way of attempting to give the reader some general impression of the way people lived together in those days, and especially of the relations of the rich and poor to one another, perhaps I cannot do better than to compare society as it then was to a prodigious coach which the masses of humanity were harnessed to and dragged toilsomely along a very hilly and sandy road. The driver was hunger, and permitted no lagging, though the pace was necessarily very slow. Despite the difficulty of drawing the coach at all along so hard a road, the top was covered with passengers who never got down, even at the steepest ascents. These seats on top were very breezy and comfortable. Well up out of the dust, their occupants could enjoy the scenery at their leisure, or critically discuss the merits of the straining team. Naturally such places were in great demand and the competition for them was keen, every one seeking as the first end in life to secure a seat on the coach for himself and to leave it to his child after him. By the rule of the coach a man could leave his seat to whom he wished, but on the other hand there were many accidents by which it might at any time be wholly

lost. For all that they were so easy, the seats were very insecure, and at every sudden jolt of the coach persons were slipping out of them and falling to the ground, where they were instantly compelled to take hold of the rope and help to drag the coach on which they had before ridden so pleasantly. It was naturally regarded as a terrible misfortune to lose one's seat, and the apprehension that this might happen to them or their friends was a constant cloud upon the happiness of those who rode.

But did they think only of themselves? you ask. Was not their very luxury rendered intolerable to them by comparison with the lot of their brothers and sisters in the harness, and the knowledge that their own weight added to their toil? Had they no compassion for fellow beings from whom fortune only distinguished them? Oh, yes; commiseration was frequently expressed by those who rode for those who had to pull the coach, especially when the vehicle came to a bad place in the road, as it was constantly doing, or to a particularly steep hill. At such times, the desperate straining of the team, their agonized leaping and plunging under the pitiless lashing of hunger, the many who fainted at the rope and were trampled in the mire, made a very distressing spectacle, which often called forth highly creditable displays of feeling on the top of the coach. At such times the passengers would call down encouragingly to the toilers of the rope, exhorting them to patience, and holding out hopes of possible compensation in another world for the hardness of their lot, while others contributed to buy salves and liniments for the crippled and injured. It was agreed that it was a great pity that the coach should be so hard to pull, and there was a sense of general relief when the specially bad piece of road was gotten over. This relief was not, indeed, wholly on account of the team, for there was always some danger at these bad places of a general overturn in which all would lose their seats.

It must in truth be admitted that the main effect of the spectacle of the misery of the toilers at the rope was to enhance the passengers' sense of the value of their seats upon the coach, and to cause them to hold on to them more desperately than before. If the passengers could only have felt assured that neither they nor their friends would ever fall from the top, it is probable that, beyond contributing to the funds for liniments and bandages, they would have troubled themselves extremely little about those who dragged the coach.

I am well aware that this will appear to the men and women of the twentieth century an incredible inhumanity, but there are two facts, both very curious, which partly explain it. In the first place, it was firmly and sincerely believed that there was no other way in which Society could get along, except the many pulled at the rope and the few rode, and not only this, but that no very radical improvement even was possible, either in the harness, the coach, the roadway, or the distribution of the toil. It had always been as it was, and it always would be so. It was a pity, but it could not be helped, and philosophy forbade wasting compassion on what was beyond remedy.

The other fact is yet more curious, consisting in a singular hallucination which those on the top of the coach generally shared, that they were not exactly like their brothers and sisters who pulled at the rope, but of finer clay, in some way belonging to a higher order of beings who might justly expect to be drawn. This seems unaccountable, but, as I once rode on this very coach and shared that very hallucination, I ought to be believed. The strangest thing about the hallucination was that those who had but just climbed up from the ground, before they had outgrown the marks of the rope upon their hands, began to fall under its influence. As for those whose parents and grand-parents before them had been so fortunate as to keep their seats on the top, the conviction they cherished of the essential difference between their sort of humanity and the common article was absolute. The effect of such a delusion in moderating fellow feeling for the sufferings of the mass of men into a distant and philosophical compassion is obvious. To it I refer as the only extenuation I can offer for the indifference which, at the period I write of, marked my own attitude toward the misery of my brothers.

In 1887 I came to my thirtieth year. Although still unmarried, I was engaged to wed Edith Bartlett. She, like myself, rode on the top of the coach. That is to say, not to encumber ourselves further with an illustration which has, I hope, served its purpose of giving the reader some general impression of how we lived then, her family was wealthy. In that age, when money alone commanded all that was agreeable and refined in life, it was enough for a woman to be rich to have suitors; but Edith Bartlett was beautiful and graceful also.

My lady readers, I am aware, will protest at this. “Handsome she might

have been," I hear them saying, "but graceful never, in the costumes which were the fashion at that period, when the head covering was a dizzy structure a foot tall, and the almost incredible extension of the skirt behind by means of artificial contrivances more thoroughly dehumanized the form than any former device of dressmakers. Fancy any one graceful in such a costume!" The point is certainly well taken, and I can only reply that while the ladies of the twentieth century are lovely demonstrations of the effect of appropriate drapery in accenting feminine graces, my recollection of their great-grandmothers enables me to maintain that no deformity of costume can wholly disguise them.

Our marriage only waited on the completion of the house which I was building for our occupancy in one of the most desirable parts of the city, that is to say, a part chiefly inhabited by the rich. For it must be understood that the comparative desirability of different parts of Boston for residence depended then, not on natural features, but on the character of the neighboring population. Each class or nation lived by itself, in quarters of its own. A rich man living among the poor, an educated man among the uneducated, was like one living in isolation among a jealous and alien race. When the house had been begun, its completion by the winter of 1886 had been expected. The spring of the following year found it, however, yet incomplete, and my marriage still a thing of the future. The cause of a delay calculated to be particularly exasperating to an ardent lover was a series of strikes, that is to say, concerted refusals to work on the part of the brick-layers, masons, carpenters, painters, plumbers, and other trades concerned in house building. What the specific causes of these strikes were I do not remember. Strikes had become so common at that period that people had ceased to inquire into their particular grounds. In one department of industry or another, they had been nearly incessant ever since the great business crisis of 1873. In fact it had come to be the exceptional thing to see any class of laborers pursue their avocation steadily for more than a few months at a time.

The reader who observes the dates alluded to will of course recognize in these disturbances of industry the first and incoherent phase of the great movement which ended in the establishment of the modern industrial system with all its social consequences. This is all so plain in the retrospect that a child can understand it, but not being prophets, we of that day had no clear idea what

was happening to us. What we did see was that industrially the country was in a very queer way. The relation between the workingman and the employer, between labor and capital, appeared in some unaccountable manner to have become dislocated. The working classes had quite suddenly and very generally become infected with a profound discontent with their condition, and an idea that it could be greatly bettered if they only knew how to go about it. On every side, with one accord, they preferred demands for higher pay, shorter hours, better dwellings, better educational advantages, and a share in the refinements and luxuries of life, demands which it was impossible to see the way to granting unless the world were to become a great deal richer than it then was. Though they knew something of what they wanted, they knew nothing of how to accomplish it, and the eager enthusiasm with which they thronged about any one who seemed likely to give them any light on the subject lent sudden reputation to many would-be leaders, some of whom had little enough light to give. However chimerical the aspirations of the laboring classes might be deemed, the devotion with which they supported one another in the strikes, which were their chief weapon, and the sacrifices which they underwent to carry them out left no doubt of their dead earnestness.

As to the final outcome of the labor troubles, which was the phrase by which the movement I have described was most commonly referred to, the opinions of the people of my class differed according to individual temperament. The sanguine argued very forcibly that it was in the very nature of things impossible that the new hopes of the workingmen could be satisfied, simply because the world had not the wherewithal to satisfy them. It was only because the masses worked very hard and lived on short commons that the race did not starve outright, and no considerable improvement in their condition was possible while the world, as a whole, remained so poor. It was not the capitalists whom the laboring men were contending with, these maintained, but the iron-bound environment of humanity, and it was merely a question of the thickness of their skulls when they would discover the fact and make up their minds to endure what they could not cure.

The less sanguine admitted all this. Of course the workingmen's aspirations were impossible of fulfillment for natural reasons, but there were grounds to fear that they would not discover this fact until they had made a sad mess of society.

They had the votes and the power to do so if they pleased, and their leaders meant they should. Some of these desponding observers went so far as to predict an impending social cataclysm. Humanity, they argued, having climbed to the top round of the ladder of civilization, was about to take a header into chaos, after which it would doubtless pick itself up, turn round, and begin to climb again. Repeated experiences of this sort in historic and prehistoric times possibly accounted for the puzzling bumps on the human cranium. Human history, like all great movements, was cyclical, and returned to the point of beginning. The idea of indefinite progress in a right line was a chimera of the imagination, with no analogue in nature. The parabola of a comet was perhaps a yet better illustration of the career of humanity. Tending upward and sunward from the aphelion of barbarism, the race attained the perihelion of civilization only to plunge downward once more to its nether goal in the regions of chaos.

This, of course, was an extreme opinion, but I remember serious men among my acquaintances who, in discussing the signs of the times, adopted a very similar tone. It was no doubt the common opinion of thoughtful men that society was approaching a critical period which might result in great changes. The labor troubles, their causes, course, and cure, took lead of all other topics in the public prints, and in serious conversation.

The nervous tension of the public mind could not have been more strikingly illustrated than it was by the alarm resulting from the talk of a small band of men who called themselves anarchists, and proposed to terrify the American people into adopting their ideas by threats of violence, as if a mighty nation which had but just put down a rebellion of half its own numbers, in order to maintain its political system, were likely to adopt a new social system out of fear.

As one of the wealthy, with a large stake in the existing order of things, I naturally shared the apprehensions of my class. The particular grievance I had against the working classes at the time of which I write, on account of the effect of their strikes in postponing my wedded bliss, no doubt lent a special animosity to my feeling toward them.

CHAPTER 2

The thirtieth day of May, 1887, fell on a Monday. It was one of the annual holidays of the nation in the latter third of the nineteenth century, being set apart under the name of Decoration Day, for doing honor to the memory of the soldiers of the North who took part in the war for the preservation of the union of the States. The survivors of the war, escorted by military and civic processions and bands of music, were wont on this occasion to visit the cemeteries and lay wreaths of flowers upon the graves of their dead comrades, the ceremony being a very solemn and touching one. The eldest brother of Edith Bartlett had fallen in the war, and on Decoration Day the family was in the habit of making a visit to Mount Auburn, where he lay.

I had asked permission to make one of the party, and, on our return to the city at nightfall, remained to dine with the family of my betrothed. In the drawing-room, after dinner, I picked up an evening paper and read of a fresh strike in the building trades, which would probably still further delay the completion of my unlucky house. I remember distinctly how exasperated I was at this, and the objurgations, as forcible as the presence of the ladies permitted, which I lavished upon workmen in general, and these strikers in particular. I had abundant sympathy from those about me, and the remarks made in the desultory conversation which followed, upon the unprincipled conduct of the labor agitators, were calculated to make those gentlemen's ears tingle. It was agreed that affairs were going from bad to worse very fast, and that there was no telling what we should come to soon. "The worst of it," I remember Mrs. Bartlett's saying, "is that the working classes all over the world seem to be going crazy at once. In Europe it is far worse even than here. I'm sure I should not dare to live there at all. I asked Mr. Bartlett the other day where we should emigrate to if all the terrible things took place which those socialists threaten. He said he did not know any place now where society could be called stable except Greenland, Patagonia, and the Chinese Empire." "Those Chinamen knew what they were about," somebody added, "when they refused to let in our western civilization. They knew what it would lead to better than we did. They saw it was nothing but dynamite in disguise."

After this, I remember drawing Edith apart and trying to persuade her that

it would be better to be married at once without waiting for the completion of the house, spending the time in travel till our home was ready for us. She was remarkably handsome that evening, the mourning costume that she wore in recognition of the day setting off to great advantage the purity of her complexion. I can see her even now with my mind's eye just as she looked that night. When I took my leave she followed me into the hall and I kissed her good-by as usual. There was no circumstance out of the common to distinguish this parting from previous occasions when we had bade each other good-by for a night or a day. There was absolutely no premonition in my mind, or I am sure in hers, that this was more than an ordinary separation.

Ah, well!

The hour at which I had left my betrothed was a rather early one for a lover, but the fact was no reflection on my devotion. I was a confirmed sufferer from insomnia, and although otherwise perfectly well had been completely fagged out that day, from having slept scarcely at all the two previous nights. Edith knew this and had insisted on sending me home by nine o'clock, with strict orders to go to bed at once.

The house in which I lived had been occupied by three generations of the family of which I was the only living representative in the direct line. It was a large, ancient wooden mansion, very elegant in an old-fashioned way within, but situated in a quarter that had long since become undesirable for residence, from its invasion by tenement houses and manufactories. It was not a house to which I could think of bringing a bride, much less so dainty a one as Edith Bartlett. I had advertised it for sale, and meanwhile merely used it for sleeping purposes, dining at my club. One servant, a faithful colored man by the name of Sawyer, lived with me and attended to my few wants. One feature of the house I expected to miss greatly when I should leave it, and this was the sleeping chamber which I had built under the foundations. I could not have slept in the city at all, with its never ceasing nightly noises, if I had been obliged to use an upstairs chamber. But to this subterranean room no murmur from the upper world ever penetrated. When I had entered it and closed the door, I was surrounded by the silence of the tomb. In order to prevent the dampness of the subsoil from penetrating the chamber, the walls had been laid in hydraulic cement and were very thick, and the floor was likewise protected. In order that

the room might serve also as a vault equally proof against violence and flames, for the storage of valuables, I had roofed it with stone slabs hermetically sealed, and the outer door was of iron with a thick coating of asbestos. A small pipe, communicating with a wind-mill on the top of the house, insured the renewal of air.

It might seem that the tenant of such a chamber ought to be able to command slumber, but it was rare that I slept well, even there, two nights in succession. So accustomed was I to wakefulness that I minded little the loss of one night's rest. A second night, however, spent in my reading chair instead of my bed, tired me out, and I never allowed myself to go longer than that without slumber, from fear of nervous disorder. From this statement it will be inferred that I had at my command some artificial means for inducing sleep in the last resort, and so in fact I had. If after two sleepless nights I found myself on the approach of the third without sensations of drowsiness, I called in Dr. Pillsbury.

He was a doctor by courtesy only, what was called in those days an "irregular" or "quack" doctor. He called himself a "Professor of Animal Magnetism." I had come across him in the course of some amateur investigations into the phenomena of animal magnetism. I don't think he knew anything about medicine, but he was certainly a remarkable mesmerist. It was for the purpose of being put to sleep by his manipulations that I used to send for him when I found a third night of sleeplessness impending. Let my nervous excitement or mental preoccupation be however great, Dr. Pillsbury never failed, after a short time, to leave me in a deep slumber, which continued till I was aroused by a reversal of the mesmerizing process. The process for awaking the sleeper was much simpler than that for putting him to sleep, and for convenience I had made Dr Pillsbury teach Sawyer how to do it.

My faithful servant alone knew for what purpose Dr. Pillsbury visited me, or that he did so at all. Of course, when Edith became my wife I should have to tell her my secrets. I had not hitherto told her this, because there was unquestionably a slight risk in the mesmeric sleep, and I knew she would set her face against my practice. The risk, of course, was that it might become too profound and pass into a trance beyond the mesmerizer's power to break, ending in death. Repeated experiments had fully convinced me that the risk was next to nothing if reasonable precautions were exercised, and of this I

hoped, though doubtingly, to convince Edith. I went directly home after leaving her, and at once sent Sawyer to fetch Dr. Pillsbury. Meanwhile I sought my subterranean sleeping chamber, and exchanging my costume for a comfortable dressing-gown, sat down to read the letters by the evening mail which Sawyer had laid on my reading table.

One of them was from the builder of my new house, and confirmed what I had inferred from the newspaper item. The new strikes, he said, had postponed indefinitely the completion of the contract, as neither masters nor workmen would concede the point at issue without a long struggle. Caligula wished that the Roman people had but one neck that he might cut it off, and as I read this letter I am afraid that for a moment I was capable of wishing the same thing concerning the laboring classes of America. The return of Sawyer with the doctor interrupted my gloomy meditations.

It appeared that he had with difficulty been able to secure his services, as he was preparing to leave the city that very night. The doctor explained that since he had seen me last he had learned of a fine professional opening in a distant city, and decided to take prompt advantage of it. On my asking, in some panic, what I was to do for some one to put me to sleep, he gave me the names of several mesmerizers in Boston who, he averred, had quite as great powers as he.

Somewhat relieved on this point, I instructed Sawyer to rouse me at nine o'clock next morning, and, lying down on the bed in my dressing-gown, assumed a comfortable attitude, and surrendered myself to the manipulations of the mesmerizer. Owing, perhaps, to my unusually nervous state, I was slower than common in losing consciousness, but at length a delicious drowsiness stole over me.

CHAPTER 3

"He is going to open his eyes. He had better see but one of us at first."

"Promise me, then, that you will not tell him."

The first voice was a man's, the second a woman's, and both spoke in whispers.

"I will see how he seems," replied the man.

"No, no, promise me," persisted the other.

"Let her have her way," whispered a third voice, also a woman.

"Well, well, I promise, then," answered the man. "Quick, go! He is coming out of it."

There was a rustle of garments and I opened my eyes. A fine looking man of perhaps sixty was bending over me, an expression of much benevolence mingled with great curiosity upon his features. He was an utter stranger. I raised myself on an elbow and looked around. The room was empty. I certainly had never been in it before, or one furnished like it. I looked back at my companion. He smiled.

"How do you feel?" he inquired.

"Where am I?" I demanded.

"You are in my house," was the reply.

"How came I here?"

"We will talk about that when you are stronger. Meanwhile, I beg you will feel no anxiety. You are among friends and in good hands. How do you feel?"

"A bit queerly," I replied, "but I am well, I suppose. Will you tell me how I came to be indebted to your hospitality? What has happened to me? How came I here? It was in my own house that I went to sleep."

"There will be time enough for explanations later," my unknown host replied, with a reassuring smile. "It will be better to avoid agitating talk until you are a little more yourself. Will you oblige me by taking a couple of swallows of this mixture? It will do you good. I am a physician."

I repelled the glass with my hand and sat up on the couch, although with an effort, for my head was strangely light.

"I insist upon knowing at once where I am and what you have been doing with me," I said.

"My dear sir," responded my companion, "let me beg that you will not agitate yourself. I would rather you did not insist upon explanations so soon, but if you do, I will try to satisfy you, provided you will first take this draught, which will strengthen you somewhat."

I thereupon drank what he offered me. Then he said, "It is not so simple a matter as you evidently suppose to tell you how you came here. You can tell me quite as much on that point as I can tell you. You have just been roused from a deep sleep, or, more properly, trance. So much I can tell you. You say you were in your own house when you fell into that sleep. May I ask you when that was?"

"When?" I replied, "when? Why, last evening, of course, at about ten o'clock. I left my man Sawyer orders to call me at nine o'clock. What has become of Sawyer?"

"I can't precisely tell you that," replied my companion, regarding me with a curious expression, "but I am sure that he is excusable for not being here. And now can you tell me a little more explicitly when it was that you fell into that sleep, the date, I mean?"

"Why, last night, of course; I said so, didn't I? that is, unless I have overslept an entire day. Great heavens! that cannot be possible; and yet I have an odd sensation of having slept a long time. It was Decoration Day that I went to sleep."

"Decoration Day?"

"Yes, Monday, the 30th."

"Pardon me, the 30th of what?"

"Why, of this month, of course, unless I have slept into June, but that can't be."

"This month is September."

"September! You don't mean that I've slept since May! God in heaven! Why, it is incredible."

"We shall see," replied my companion; "you say that it was May 30th when you went to sleep?"

"Yes."

"May I ask of what year?"

I stared blankly at him, incapable of speech, for some moments.

"Of what year?" I feebly echoed at last.

"Yes, of what year, if you please? After you have told me that I shall be able to tell you how long you have slept."

"It was the year 1887," I said.

My companion insisted that I should take another draught from the glass, and felt my pulse.

"My dear sir," he said, "your manner indicates that you are a man of culture, which I am aware was by no means the matter of course in your day it now is. No doubt, then, you have yourself made the observation that nothing in this world can be truly said to be more wonderful than anything else. The causes of all phenomena are equally adequate, and the results equally matters of course. That you should be startled by what I shall tell you is to be expected; but I am confident that you will not permit it to affect your equanimity unduly. Your appearance is that of a young man of barely thirty, and your bodily condition seems not greatly different from that of one just roused from a somewhat too long and profound sleep, and yet this is the tenth day of September in the year 2000, and you have slept exactly one hundred and thirteen years, three months, and eleven days."

Feeling partially dazed, I drank a cup of some sort of broth at my companion's suggestion, and, immediately afterward becoming very drowsy, went off into a deep sleep.

When I awoke it was broad daylight in the room, which had been lighted artificially when I was awake before. My mysterious host was sitting near. He was not looking at me when I opened my eyes, and I had a good opportunity to study him and meditate upon my extraordinary situation, before he observed that I was awake. My giddiness was all gone, and my mind perfectly clear. The story that I had been asleep one hundred and thirteen years, which, in my former weak and bewildered condition, I had accepted without question, recurred to me now only to be rejected as a preposterous attempt at an imposture, the motive of which it was impossible remotely to surmise.

Something extraordinary had certainly happened to account for my waking up in this strange house with this unknown companion, but my fancy was utterly impotent to suggest more than the wildest guess as to what that something might have been. Could it be that I was the victim of some sort of conspiracy? It looked so, certainly; and yet, if human lineaments ever gave true evidence, it

was certain that this man by my side, with a face so refined and ingenuous, was no party to any scheme of crime or outrage. Then it occurred to me to question if I might not be the butt of some elaborate practical joke on the part of friends who had somehow learned the secret of my underground chamber and taken this means of impressing me with the peril of mesmeric experiments. There were great difficulties in the way of this theory; Sawyer would never have betrayed me, nor had I any friends at all likely to undertake such an enterprise; nevertheless the supposition that I was the victim of a practical joke seemed on the whole the only one tenable. Half expecting to catch a glimpse of some familiar face grinning from behind a chair or curtain, I looked carefully about the room. When my eyes next rested on my companion, he was looking at me.

"You have had a fine nap of twelve hours," he said briskly, "and I can see that it has done you good. You look much better. Your color is good and your eyes are bright. How do you feel?"

"I never felt better," I said, sitting up.

"You remember your first waking, no doubt," he pursued, "and your surprise when I told you how long you had been asleep?"

"You said, I believe, that I had slept one hundred and thirteen years."

"Exactly."

"You will admit," I said, with an ironical smile, "that the story was rather an improbable one."

"Extraordinary, I admit," he responded, "but given the proper conditions, not improbable nor inconsistent with what we know of the trance state. When complete, as in your case, the vital functions are absolutely suspended, and there is no waste of the tissues. No limit can be set to the possible duration of a trance when the external conditions protect the body from physical injury. This trance of yours is indeed the longest of which there is any positive record, but there is no known reason wherefore, had you not been discovered and had the chamber in which we found you continued intact, you might not have remained in a state of suspended animation till, at the end of indefinite ages, the gradual refrigeration of the earth had destroyed the bodily tissues and set the spirit free."

I had to admit that, if I were indeed the victim of a practical joke, its authors had chosen an admirable agent for carrying out their imposition. The

impressive and even eloquent manner of this man would have lent dignity to an argument that the moon was made of cheese. The smile with which I had regarded him as he advanced his trance hypothesis did not appear to confuse him in the slightest degree.

"Perhaps," I said, "you will go on and favor me with some particulars as to the circumstances under which you discovered this chamber of which you speak, and its contents. I enjoy good fiction."

"In this case," was the grave reply, "no fiction could be so strange as the truth. You must know that these many years I have been cherishing the idea of building a laboratory in the large garden beside this house, for the purpose of chemical experiments for which I have a taste. Last Thursday the excavation for the cellar was at last begun. It was completed by that night, and Friday the masons were to have come. Thursday night we had a tremendous deluge of rain, and Friday morning I found my cellar a frog-pond and the walls quite washed down. My daughter, who had come out to view the disaster with me, called my attention to a corner of masonry laid bare by the crumbling away of one of the walls. I cleared a little earth from it, and, finding that it seemed part of a large mass, determined to investigate it. The workmen I sent for unearthed an oblong vault some eight feet below the surface, and set in the corner of what had evidently been the foundation walls of an ancient house. A layer of ashes and charcoal on the top of the vault showed that the house above had perished by fire. The vault itself was perfectly intact, the cement being as good as when first applied. It had a door, but this we could not force, and found entrance by removing one of the flagstones which formed the roof. The air which came up was stagnant but pure, dry and not cold. Descending with a lantern, I found myself in an apartment fitted up as a bedroom in the style of the nineteenth century. On the bed lay a young man. That he was dead and must have been dead a century was of course to be taken for granted; but the extraordinary state of preservation of the body struck me and the medical colleagues whom I had summoned with amazement. That the art of such embalming as this had ever been known we should not have believed, yet here seemed conclusive testimony that our immediate ancestors had possessed it. My medical colleagues, whose curiosity was highly excited, were at once for undertaking experiments to test the nature of the process employed, but I withheld them. My motive in so doing,

at least the only motive I now need speak of, was the recollection of something I once had read about the extent to which your contemporaries had cultivated the subject of animal magnetism. It had occurred to me as just conceivable that you might be in a trance, and that the secret of your bodily integrity after so long a time was not the craft of an embalmer, but life. So extremely fanciful did this idea seem, even to me, that I did not risk the ridicule of my fellow physicians by mentioning it, but gave some other reason for postponing their experiments. No sooner, however, had they left me, than I set on foot a systematic attempt at resuscitation, of which you know the result."

Had its theme been yet more incredible, the circumstantiality of this narrative, as well as the impressive manner and personality of the narrator, might have staggered a listener, and I had begun to feel very strangely, when, as he closed, I chanced to catch a glimpse of my reflection in a mirror hanging on the wall of the room. I rose and went up to it. The face I saw was the face to a hair and a line and not a day older than the one I had looked at as I tied my cravat before going to Edith that Decoration Day, which, as this man would have me believe, was celebrated one hundred and thirteen years before. At this, the colossal character of the fraud which was being attempted on me, came over me afresh. Indignation mastered my mind as I realized the outrageous liberty that had been taken.

"You are probably surprised," said my companion, "to see that, although you are a century older than when you lay down to sleep in that underground chamber, your appearance is unchanged. That should not amaze you. It is by virtue of the total arrest of the vital functions that you have survived this great period of time. If your body could have undergone any change during your trance, it would long ago have suffered dissolution."

"Sir," I replied, turning to him, "what your motive can be in reciting to me with a serious face this remarkable farrago, I am utterly unable to guess; but you are surely yourself too intelligent to suppose that anybody but an imbecile could be deceived by it. Spare me any more of this elaborate nonsense and once for all tell me whether you refuse to give me an intelligible account of where I am and how I came here. If so, I shall proceed to ascertain my whereabouts for myself, whoever may hinder."

"You do not, then, believe that this is the year 2000?"

"Do you really think it necessary to ask me that?" I returned.

"Very well," replied my extraordinary host. "Since I cannot convince you, you shall convince yourself. Are you strong enough to follow me upstairs?"

"I am as strong as I ever was," I replied angrily, "as I may have to prove if this jest is carried much farther."

"I beg, sir," was my companion's response, "that you will not allow yourself to be too fully persuaded that you are the victim of a trick, lest the reaction, when you are convinced of the truth of my statements, should be too great."

The tone of concern, mingled with commiseration, with which he said this, and the entire absence of any sign of resentment at my hot words, strangely daunted me, and I followed him from the room with an extraordinary mixture of emotions. He led the way up two flights of stairs and then up a shorter one, which landed us upon a belvedere on the house-top. "Be pleased to look around you," he said, as we reached the platform, "and tell me if this is the Boston of the nineteenth century."

At my feet lay a great city. Miles of broad streets, shaded by trees and lined with fine buildings, for the most part not in continuous blocks but set in larger or smaller inclosures, stretched in every direction. Every quarter contained large open squares filled with trees, among which statues glistened and fountains flashed in the late afternoon sun. Public buildings of a colossal size and an architectural grandeur unparalleled in my day raised their stately piles on every side. Surely I had never seen this city nor one comparable to it before. Raising my eyes at last towards the horizon, I looked westward. That blue ribbon winding away to the sunset, was it not the sinuous Charles? I looked east; Boston harbor stretched before me within its headlands, not one of its green islets missing.

I knew then that I had been told the truth concerning the prodigious thing which had befallen me.

CHAPTER 4

I did not faint, but the effort to realize my position made me very giddy, and I remember that my companion had to give me a strong arm as he conducted me from the roof to a roomy apartment on the upper floor of the house, where he insisted on my drinking a glass or two of good wine and partaking of a light repast.

"I think you are going to be all right now," he said cheerily. "I should not have taken so abrupt a means to convince you of your position if your course, while perfectly excusable under the circumstances, had not rather obliged me to do so. I confess," he added laughing, "I was a little apprehensive at one time that I should undergo what I believe you used to call a knockdown in the nineteenth century, if I did not act rather promptly. I remembered that the Bostonians of your day were famous pugilists, and thought best to lose no time. I take it you are now ready to acquit me of the charge of hoaxing you."

"If you had told me," I replied, profoundly awed, "that a thousand years instead of a hundred had elapsed since I last looked on this city, I should now believe you."

"Only a century has passed," he answered, "but many a millennium in the world's history has seen changes less extraordinary."

"And now," he added, extending his hand with an air of irresistible cordiality, "let me give you a hearty welcome to the Boston of the twentieth century and to this house. My name is Leete, Dr. Leete they call me."

"My name," I said as I shook his hand, "is Julian West."

"I am most happy in making your acquaintance, Mr. West," he responded. "Seeing that this house is built on the site of your own, I hope you will find it easy to make yourself at home in it."

After my refreshment Dr. Leete offered me a bath and a change of clothing, of which I gladly availed myself.

It did not appear that any very startling revolution in men's attire had been among the great changes my host had spoken of, for, barring a few details, my new habiliments did not puzzle me at all.

Physically, I was now myself again. But mentally, how was it with me, the reader will doubtless wonder. What were my intellectual sensations, he may

wish to know, on finding myself so suddenly dropped as it were into a new world. In reply let me ask him to suppose himself suddenly, in the twinkling of an eye, transported from earth, say, to Paradise or Hades. What does he fancy would be his own experience? Would his thoughts return at once to the earth he had just left, or would he, after the first shock, wellnigh forget his former life for a while, albeit to be remembered later, in the interest excited by his new surroundings? All I can say is, that if his experience were at all like mine in the transition I am describing, the latter hypothesis would prove the correct one. The impressions of amazement and curiosity which my new surroundings produced occupied my mind, after the first shock, to the exclusion of all other thoughts. For the time the memory of my former life was, as it were, in abeyance.

No sooner did I find myself physically rehabilitated through the kind offices of my host, than I became eager to return to the house-top; and presently we were comfortably established there in easy-chairs, with the city beneath and around us. After Dr. Leete had responded to numerous questions on my part, as to the ancient landmarks I missed and the new ones which had replaced them, he asked me what point of the contrast between the new and the old city struck me most forcibly.

"To speak of small things before great," I responded, "I really think that the complete absence of chimneys and their smoke is the detail that first impressed me."

"Ah!" ejaculated my companion with an air of much interest, "I had forgotten the chimneys, it is so long since they went out of use. It is nearly a century since the crude method of combustion on which you depended for heat became obsolete."

"In general," I said, "what impresses me most about the city is the material prosperity on the part of the people which its magnificence implies."

"I would give a great deal for just one glimpse of the Boston of your day," replied Dr. Leete. "No doubt, as you imply, the cities of that period were rather shabby affairs. If you had the taste to make them splendid, which I would not be so rude as to question, the general poverty resulting from your extraordinary industrial system would not have given you the means. Moreover, the excessive individualism which then prevailed was inconsistent with much public spirit.

What little wealth you had seems almost wholly to have been lavished in private luxury. Nowadays, on the contrary, there is no destination of the surplus wealth so popular as the adornment of the city, which all enjoy in equal degree."

The sun had been setting as we returned to the house-top, and as we talked night descended upon the city.

"It is growing dark," said Dr. Leete. "Let us descend into the house; I want to introduce my wife and daughter to you."

His words recalled to me the feminine voices which I had heard whispering about me as I was coming back to conscious life; and, most curious to learn what the ladies of the year 2000 were like, I assented with alacrity to the proposition. The apartment in which we found the wife and daughter of my host, as well as the entire interior of the house, was filled with a mellow light, which I knew must be artificial, although I could not discover the source from which it was diffused. Mrs. Leete was an exceptionally fine looking and well preserved woman of about her husband's age, while the daughter, who was in the first blush of womanhood, was the most beautiful girl I had ever seen. Her face was as bewitching as deep blue eyes, delicately tinted complexion, and perfect features could make it, but even had her countenance lacked special charms, the faultless luxuriance of her figure would have given her place as a beauty among the women of the nineteenth century. Feminine softness and delicacy were in this lovely creature deliciously combined with an appearance of health and abounding physical vitality too often lacking in the maidens with whom alone I could compare her. It was a coincidence trifling in comparison with the general strangeness of the situation, but still striking, that her name should be Edith.

The evening that followed was certainly unique in the history of social intercourse, but to suppose that our conversation was peculiarly strained or difficult would be a great mistake. I believe indeed that it is under what may be called unnatural, in the sense of extraordinary, circumstances that people behave most naturally, for the reason, no doubt, that such circumstances banish artificiality. I know at any rate that my intercourse that evening with these representatives of another age and world was marked by an ingenuous sincerity and frankness such as but rarely crown long acquaintance. No doubt the exquisite tact of my entertainers had much to do with this. Of course there was

nothing we could talk of but the strange experience by virtue of which I was there, but they talked of it with an interest so naive and direct in its expression as to relieve the subject to a great degree of the element of the weird and the uncanny which might so easily have been overpowering. One would have supposed that they were quite in the habit of entertaining waifs from another century, so perfect was their tact.

For my own part, never do I remember the operations of my mind to have been more alert and acute than that evening, or my intellectual sensibilities more keen. Of course I do not mean that the consciousness of my amazing situation was for a moment out of mind, but its chief effect thus far was to produce a feverish elation, a sort of mental intoxication.[1]

Edith Leete took little part in the conversation, but when several times the magnetism of her beauty drew my glance to her face, I found her eyes fixed on me with an absorbed intensity, almost like fascination. It was evident that I had excited her interest to an extraordinary degree, as was not astonishing, supposing her to be a girl of imagination. Though I supposed curiosity was the chief motive of her interest, it could but affect me as it would not have done had she been less beautiful.

Dr. Leete, as well as the ladies, seemed greatly interested in my account of the circumstances under which I had gone to sleep in the underground chamber. All had suggestions to offer to account for my having been forgotten there, and the theory which we finally agreed on offers at least a plausible explanation, although whether it be in its details the true one, nobody, of course, will ever know. The layer of ashes found above the chamber indicated that the house had been burned down. Let it be supposed that the conflagration had taken place the night I fell asleep. It only remains to assume that Sawyer lost his life in the fire or by some accident connected with it, and the rest follows naturally enough. No one but he and Dr. Pillsbury either knew of the existence of the chamber or that I was in it, and Dr. Pillsbury, who had gone that night to New Orleans, had probably never heard of the fire at all. The conclusion of my friends, and of the public, must have been that I had perished in the flames. An excavation of the ruins, unless thorough, would not have disclosed the recess in the foundation walls connecting with my chamber. To be sure, if the site had been again built upon, at least immediately, such an

excavation would have been necessary, but the troublous times and the undesirable character of the locality might well have prevented rebuilding. The size of the trees in the garden now occupying the site indicated, Dr. Leete said, that for more than half a century at least it had been open ground.

[1] In accounting for this state of mind it must be remembered that, except for the topic of our conversations, there was in my surroundings next to nothing to suggest what had befallen me. Within a block of my home in the old Boston I could have found social circles vastly more foreign to me. The speech of the Bostonians of the twentieth century differs even less from that of their cultured ancestors of the nineteenth than did that of the latter from the language of Washington and Franklin, while the differences between the style of dress and furniture of the two epochs are not more marked than I have known fashion to make in the time of one generation.

CHAPTER 5

When, in the course of the evening the ladies retired, leaving Dr. Leete and myself alone, he sounded me as to my disposition for sleep, saying that if I felt like it my bed was ready for me; but if I was inclined to wakefulness nothing would please him better than to bear me company. "I am a late bird, myself," he said, "and, without suspicion of flattery, I may say that a companion more interesting than yourself could scarcely be imagined. It is decidedly not often that one has a chance to converse with a man of the nineteenth century."

Now I had been looking forward all the evening with some dread to the time when I should be alone, on retiring for the night. Surrounded by these most friendly strangers, stimulated and supported by their sympathetic interest, I had been able to keep my mental balance. Even then, however, in pauses of the conversation I had had glimpses, vivid as lightning flashes, of the horror of strangeness that was waiting to be faced when I could no longer command diversion. I knew I could not sleep that night, and as for lying awake and thinking, it argues no cowardice, I am sure, to confess that I was afraid of it. When, in reply to my host's question, I frankly told him this, he replied that it would be strange if I did not feel just so, but that I need have no anxiety about sleeping; whenever I wanted to go to bed, he would give me a dose which would insure me a sound night's sleep without fail. Next morning, no doubt, I would awake with the feeling of an old citizen.

"Before I acquired that," I replied, "I must know a little more about the sort of Boston I have come back to. You told me when we were upon the house-top that though a century only had elapsed since I fell asleep, it had been marked by greater changes in the conditions of humanity than many a previous millennium. With the city before me I could well believe that, but I am very curious to know what some of the changes have been. To make a beginning somewhere, for the subject is doubtless a large one, what solution, if any, have you found for the labor question? It was the Sphinx's riddle of the nineteenth century, and when I dropped out the Sphinx was threatening to devour society, because the answer was not forthcoming. It is well worth sleeping a hundred years to learn what the right answer was, if, indeed, you have found it yet."

"As no such thing as the labor question is known nowadays," replied Dr.

Leete, "and there is no way in which it could arise, I suppose we may claim to have solved it. Society would indeed have fully deserved being devoured if it had failed to answer a riddle so entirely simple. In fact, to speak by the book, it was not necessary for society to solve the riddle at all. It may be said to have solved itself. The solution came as the result of a process of industrial evolution which could not have terminated otherwise. All that society had to do was to recognize and cooperate with that evolution, when its tendency had become unmistakable."

"I can only say," I answered, "that at the time I fell asleep no such evolution had been recognized."

"It was in 1887 that you fell into this sleep, I think you said."

"Yes, May 30th, 1887."

My companion regarded me musingly for some moments. Then he observed, "And you tell me that even then there was no general recognition of the nature of the crisis which society was nearing? Of course, I fully credit your statement. The singular blindness of your contemporaries to the signs of the times is a phenomenon commented on by many of our historians, but few facts of history are more difficult for us to realize, so obvious and unmistakable as we look back seem the indications, which must also have come under your eyes, of the transformation about to come to pass. I should be interested, Mr. West, if you would give me a little more definite idea of the view which you and men of your grade of intellect took of the state and prospects of society in 1887. You must, at least, have realized that the widespread industrial and social troubles, and the underlying dissatisfaction of all classes with the inequalities of society, and the general misery of mankind, were portents of great changes of some sort."

"We did, indeed, fully realize that," I replied. "We felt that society was dragging anchor and in danger of going adrift. Whither it would drift nobody could say, but all feared the rocks."

"Nevertheless," said Dr. Leete, "the set of the current was perfectly perceptible if you had but taken pains to observe it, and it was not toward the rocks, but toward a deeper channel."

"We had a popular proverb," I replied, "that 'hindsight is better than foresight,' the force of which I shall now, no doubt, appreciate more fully than ever. All I can say is, that the prospect was such when I went into that long

sleep that I should not have been surprised had I looked down from your house-top to-day on a heap of charred and moss-grown ruins instead of this glorious city."

Dr. Leete had listened to me with close attention and nodded thoughtfully as I finished speaking. "What you have said," he observed, "will be regarded as a most valuable vindication of Storiot, whose account of your era has been generally thought exaggerated in its picture of the gloom and confusion of men's minds. That a period of transition like that should be full of excitement and agitation was indeed to be looked for; but seeing how plain was the tendency of the forces in operation, it was natural to believe that hope rather than fear would have been the prevailing temper of the popular mind."

"You have not yet told me what was the answer to the riddle which you found," I said. "I am impatient to know by what contradiction of natural sequence the peace and prosperity which you now seem to enjoy could have been the outcome of an era like my own."

"Excuse me," replied my host, "but do you smoke?" It was not till our cigars were lighted and drawing well that he resumed. "Since you are in the humor to talk rather than to sleep, as I certainly am, perhaps I cannot do better than to try to give you enough idea of our modern industrial system to dissipate at least the impression that there is any mystery about the process of its evolution. The Bostonians of your day had the reputation of being great askers of questions, and I am going to show my descent by asking you one to begin with. What should you name as the most prominent feature of the labor troubles of your day?"

"Why, the strikes, of course," I replied.

"Exactly; but what made the strikes so formidable?"

"The great labor organizations."

"And what was the motive of these great organizations?"

"The workmen claimed they had to organize to get their rights from the big corporations," I replied.

"That is just it," said Dr. Leete; "the organization of labor and the strikes were an effect, merely, of the concentration of capital in greater masses than had ever been known before. Before this concentration began, while as yet commerce and industry were conducted by innumerable petty concerns with

small capital, instead of a small number of great concerns with vast capital, the individual workman was relatively important and independent in his relations to the employer. Moreover, when a little capital or a new idea was enough to start a man in business for himself, workingmen were constantly becoming employers and there was no hard and fast line between the two classes. Labor unions were needless then, and general strikes out of the question. But when the era of small concerns with small capital was succeeded by that of the great aggregations of capital, all this was changed. The individual laborer, who had been relatively important to the small employer, was reduced to insignificance and powerlessness over against the great corporation, while at the same time the way upward to the grade of employer was closed to him. Self-defense drove him to union with his fellows.

"The records of the period show that the outcry against the concentration of capital was furious. Men believed that it threatened society with a form of tyranny more abhorrent than it had ever endured. They believed that the great corporations were preparing for them the yoke of a baser servitude than had ever been imposed on the race, servitude not to men but to soulless machines incapable of any motive but insatiable greed. Looking back, we cannot wonder at their desperation, for certainly humanity was never confronted with a fate more sordid and hideous than would have been the era of corporate tyranny which they anticipated.

"Meanwhile, without being in the smallest degree checked by the clamor against it, the absorption of business by ever larger monopolies continued. In the United States there was not, after the beginning of the last quarter of the century, any opportunity whatever for individual enterprise in any important field of industry, unless backed by a great capital. During the last decade of the century, such small businesses as still remained were fast-failing survivals of a past epoch, or mere parasites on the great corporations, or else existed in fields too small to attract the great capitalists. Small businesses, as far as they still remained, were reduced to the condition of rats and mice, living in holes and corners, and counting on evading notice for the enjoyment of existence. The railroads had gone on combining till a few great syndicates controlled every rail in the land. In manufactories, every important staple was controlled by a syndicate. These syndicates, pools, trusts, or whatever their name, fixed prices

and crushed all competition except when combinations as vast as themselves arose. Then a struggle, resulting in a still greater consolidation, ensued. The great city bazar crushed it country rivals with branch stores, and in the city itself absorbed its smaller rivals till the business of a whole quarter was concentrated under one roof, with a hundred former proprietors of shops serving as clerks. Having no business of his own to put his money in, the small capitalist, at the same time that he took service under the corporation, found no other investment for his money but its stocks and bonds, thus becoming doubly dependent upon it.

"The fact that the desperate popular opposition to the consolidation of business in a few powerful hands had no effect to check it proves that there must have been a strong economical reason for it. The small capitalists, with their innumerable petty concerns, had in fact yielded the field to the great aggregations of capital, because they belonged to a day of small things and were totally incompetent to the demands of an age of steam and telegraphs and the gigantic scale of its enterprises. To restore the former order of things, even if possible, would have involved returning to the day of stagecoaches. Oppressive and intolerable as was the regime of the great consolidations of capital, even its victims, while they cursed it, were forced to admit the prodigious increase of efficiency which had been imparted to the national industries, the vast economies effected by concentration of management and unity of organization, and to confess that since the new system had taken the place of the old the wealth of the world had increased at a rate before undreamed of. To be sure this vast increase had gone chiefly to make the rich richer, increasing the gap between them and the poor; but the fact remained that, as a means merely of producing wealth, capital had been proved efficient in proportion to its consolidation. The restoration of the old system with the subdivision of capital, if it were possible, might indeed bring back a greater equality of conditions, with more individual dignity and freedom, but it would be at the price of general poverty and the arrest of material progress.

"Was there, then, no way of commanding the services of the mighty wealth-producing principle of consolidated capital without bowing down to a plutocracy like that of Carthage? As soon as men began to ask themselves these questions, they found the answer ready for them. The movement toward the conduct of

business by larger and larger aggregations of capital, the tendency toward monopolies, which had been so desperately and vainly resisted, was recognized at last, in its true significance, as a process which only needed to complete its logical evolution to open a golden future to humanity.

"Early in the last century the evolution was completed by the final consolidation of the entire capital of the nation. The industry and commerce of the country, ceasing to be conducted by a set of irresponsible corporations and syndicates of private persons at their caprice and for their profit, were intrusted to a single syndicate representing the people, to be conducted in the common interest for the common profit. The nation, that is to say, organized as the one great business corporation in which all other corporations were absorbed; it became the one capitalist in the place of all other capitalists, the sole employer, the final monopoly in which all previous and lesser monopolies were swallowed up, a monopoly in the profits and economies of which all citizens shared. The epoch of trusts had ended in The Great Trust. In a word, the people of the United States concluded to assume the conduct of their own business, just as one hundred odd years before they had assumed the conduct of their own government, organizing now for industrial purposes on precisely the same grounds that they had then organized for political purposes. At last, strangely late in the world's history, the obvious fact was perceived that no business is so essentially the public business as the industry and commerce on which the people's livelihood depends, and that to entrust it to private persons to be managed for private profit is a folly similar in kind, though vastly greater in magnitude, to that of surrendering the functions of political government to kings and nobles to be conducted for their personal glorification."

"Such a stupendous change as you describe," said I, "did not, of course, take place without great bloodshed and terrible convulsions."

"On the contrary," replied Dr. Leete, "there was absolutely no violence. The change had been long foreseen. Public opinion had become fully ripe for it, and the whole mass of the people was behind it. There was no more possibility of opposing it by force than by argument. On the other hand the popular sentiment toward the great corporations and those identified with them had ceased to be one of bitterness, as they came to realize their necessity as a link, a transition phase, in the evolution of the true industrial system. The most violent

foes of the great private monopolies were now forced to recognize how invaluable and indispensable had been their office in educating the people up to the point of assuming control of their own business. Fifty years before, the consolidation of the industries of the country under national control would have seemed a very daring experiment to the most sanguine. But by a series of object lessons, seen and studied by all men, the great corporations had taught the people an entirely new set of ideas on this subject. They had seen for many years syndicates handling revenues greater than those of states, and directing the labors of hundreds of thousands of men with an efficiency and economy unattainable in smaller operations. It had come to be recognized as an axiom that the larger the business the simpler the principles that can be applied to it; that, as the machine is truer than the hand, so the system, which in a great concern does the work of the master's eye in a small business, turns out more accurate results. Thus it came about that, thanks to the corporations themselves, when it was proposed that the nation should assume their functions, the suggestion implied nothing which seemed impracticable even to the timid. To be sure it was a step beyond any yet taken, a broader generalization, but the very fact that the nation would be the sole corporation in the field would, it was seen, relieve the undertaking of many difficulties with which the partial monopolies had contended."

CHAPTER 6

Dr. Leete ceased speaking, and I remained silent, endeavoring to form some general conception of the changes in the arrangements of society implied in the tremendous revolution which he had described.

Finally I said, "The idea of such an extension of the functions of government is, to say the least, rather overwhelming."

"Extension!" he repeated, "where is the extension?"

"In my day," I replied, "it was considered that the proper functions of government, strictly speaking, were limited to keeping the peace and defending the people against the public enemy, that is, to the military and police powers."

"And, in heaven's name, who are the public enemies?" exclaimed Dr. Leete. "Are they France, England, Germany, or hunger, cold, and nakedness? In your day governments were accustomed, on the slightest international misunderstanding, to seize upon the bodies of citizens and deliver them over by hundreds of thousands to death and mutilation, wasting their treasures the while like water; and all this oftenest for no imaginable profit to the victims. We have no wars now, and our governments no war powers, but in order to protect every citizen against hunger, cold, and nakedness, and provide for all his physical and mental needs, the function is assumed of directing his industry for a term of years. No, Mr. West, I am sure on reflection you will perceive that it was in your age, not in ours, that the extension of the functions of governments was extraordinary. Not even for the best ends would men now allow their governments such powers as were then used for the most maleficent."

"Leaving comparisons aside," I said, "the demagoguery and corruption of our public men would have been considered, in my day, insuperable objections to any assumption by government of the charge of the national industries. We should have thought that no arrangement could be worse than to entrust the politicians with control of the wealth-producing machinery of the country. Its material interests were quite too much the football of parties as it was."

"No doubt you were right," rejoined Dr. Leete, "but all that is changed now. We have no parties or politicians, and as for demagoguery and corruption, they are words having only an historical significance."

"Human nature itself must have changed very much," I said.

"Not at all," was Dr. Leete's reply, "but the conditions of human life have changed, and with them the motives of human action. The organization of society with you was such that officials were under a constant temptation to misuse their power for the private profit of themselves or others. Under such circumstances it seems almost strange that you dared entrust them with any of your affairs. Nowadays, on the contrary, society is so constituted that there is absolutely no way in which an official, however ill-disposed, could possibly make any profit for himself or any one else by a misuse of his power. Let him be as bad an official as you please, he cannot be a corrupt one. There is no motive to be. The social system no longer offers a premium on dishonesty. But these are matters which you can only understand as you come, with time, to know us better."

"But you have not yet told me how you have settled the labor problem. It is the problem of capital which we have been discussing," I said. "After the nation had assumed conduct of the mills, machinery, railroads, farms, mines, and capital in general of the country, the labor question still remained. In assuming the responsibilities of capital the nation had assumed the difficulties of the capitalist's position."

"The moment the nation assumed the responsibilities of capital those difficulties vanished," replied Dr. Leete. "The national organization of labor under one direction was the complete solution of what was, in your day and under your system, justly regarded as the insoluble labor problem. When the nation became the sole employer, all the citizens, by virtue of their citizenship, became employees, to be distributed according to the needs of industry."

"That is," I suggested, "you have simply applied the principle of universal military service, as it was understood in our day, to the labor question."

"Yes," said Dr. Leete, "that was something which followed as a matter of course as soon as the nation had become the sole capitalist. The people were already accustomed to the idea that the obligation of every citizen, not physically disabled, to contribute his military services to the defense of the nation was equal and absolute. That it was equally the duty of every citizen to contribute his quota of industrial or intellectual services to the maintenance of the nation was equally evident, though it was not until the nation became the employer of labor that citizens were able to render this sort of service with any

pretense either of universality or equity. No organization of labor was possible when the employing power was divided among hundreds or thousands of individuals and corporations, between which concert of any kind was neither desired, nor indeed feasible. It constantly happened then that vast numbers who desired to labor could find no opportunity, and on the other hand, those who desired to evade a part or all of their debt could easily do so."

"Service, now, I suppose, is compulsory upon all," I suggested.

"It is rather a matter of course than of compulsion," replied Dr. Leete. "It is regarded as so absolutely natural and reasonable that the idea of its being compulsory has ceased to be thought of. He would be thought to be an incredibly contemptible person who should need compulsion in such a case. Nevertheless, to speak of service being compulsory would be a weak way to state its absolute inevitableness. Our entire social order is so wholly based upon and deduced from it that if it were conceivable that a man could escape it, he would be left with no possible way to provide for his existence. He would have excluded himself from the world, cut himself off from his kind, in a word, committed suicide."

"Is the term of service in this industrial army for life?"

"Oh, no; it both begins later and ends earlier than the average working period in your day. Your workshops were filled with children and old men, but we hold the period of youth sacred to education, and the period of maturity, when the physical forces begin to flag, equally sacred to ease and agreeable relaxation. The period of industrial service is twenty-four years, beginning at the close of the course of education at twenty-one and terminating at forty-five. After forty-five, while discharged from labor, the citizen still remains liable to special calls, in case of emergencies causing a sudden great increase in the demand for labor, till he reaches the age of fifty-five, but such calls are rarely, in fact almost never, made. The fifteenth day of October of every year is what we call Muster Day, because those who have reached the age of twenty-one are then mustered into the industrial service, and at the same time those who, after twenty-four years' service, have reached the age of forty-five, are honorably mustered out. It is the great day of the year with us, whence we reckon all other events, our Olympiad, save that it is annual."

CHAPTER 7

"It is after you have mustered your industrial army into service," I said, "that I should expect the chief difficulty to arise, for there its analogy with a military army must cease. Soldiers have all the same thing, and a very simple thing, to do, namely, to practice the manual of arms, to march and stand guard. But the industrial army must learn and follow two or three hundred diverse trades and avocations. What administrative talent can be equal to determining wisely what trade or business every individual in a great nation shall pursue?"

"The administration has nothing to do with determining that point."

"Who does determine it, then?" I asked.

"Every man for himself in accordance with his natural aptitude, the utmost pains being taken to enable him to find out what his natural aptitude really is. The principle on which our industrial army is organized is that a man's natural endowments, mental and physical, determine what he can work at most profitably to the nation and most satisfactorily to himself. While the obligation of service in some form is not to be evaded, voluntary election, subject only to necessary regulation, is depended on to determine the particular sort of service every man is to render. As an individual's satisfaction during his term of service depends on his having an occupation to his taste, parents and teachers watch from early years for indications of special aptitudes in children. A thorough study of the National industrial system, with the history and rudiments of all the great trades, is an essential part of our educational system. While manual training is not allowed to encroach on the general intellectual culture to which our schools are devoted, it is carried far enough to give our youth, in addition to their theoretical knowledge of the national industries, mechanical and agricultural, a certain familiarity with their tools and methods. Our schools are constantly visiting our workshops, and often are taken on long excursions to inspect particular industrial enterprises. In your day a man was not ashamed to be grossly ignorant of all trades except his own, but such ignorance would not be consistent with our idea of placing every one in a position to select intelligently the occupation for which he has most taste. Usually long before he is mustered into service a young man has found out the pursuit he wants to follow, has acquired a great deal of knowledge about it, and is waiting

impatiently the time when he can enlist in its ranks."

"Surely," I said, "it can hardly be that the number of volunteers for any trade is exactly the number needed in that trade. It must be generally either under or over the demand."

"The supply of volunteers is always expected to fully equal the demand," replied Dr. Leete. "It is the business of the administration to see that this is the case. The rate of volunteering for each trade is closely watched. If there be a noticeably greater excess of volunteers over men needed in any trade, it is inferred that the trade offers greater attractions than others. On the other hand, if the number of volunteers for a trade tends to drop below the demand, it is inferred that it is thought more arduous. It is the business of the administration to seek constantly to equalize the attractions of the trades, so far as the conditions of labor in them are concerned, so that all trades shall be equally attractive to persons having natural tastes for them. This is done by making the hours of labor in different trades to differ according to their arduousness. The lighter trades, prosecuted under the most agreeable circumstances, have in this way the longest hours, while an arduous trade, such as mining, has very short hours. There is no theory, no a priori rule, by which the respective attractiveness of industries is determined. The administration, in taking burdens off one class of workers and adding them to other classes, simply follows the fluctuations of opinion among the workers themselves as indicated by the rate of volunteering. The principle is that no man's work ought to be, on the whole, harder for him than any other man's for him, the workers themselves to be the judges. There are no limits to the application of this rule. If any particular occupation is in itself so arduous or so oppressive that, in order to induce volunteers, the day's work in it had to be reduced to ten minutes, it would be done. If, even then, no man was willing to do it, it would remain undone. But of course, in point of fact, a moderate reduction in the hours of labor, or addition of other privileges, suffices to secure all needed volunteers for any occupation necessary to men. If, indeed, the unavoidable difficulties and dangers of such a necessary pursuit were so great that no inducement of compensating advantages would overcome men's repugnance to it, the administration would only need to take it out of the common order of occupations by declaring it 'extra hazardous,' and those who pursued it

especially worthy of the national gratitude, to be overrun with volunteers. Our young men are very greedy of honor, and do not let slip such opportunities. Of course you will see that dependence on the purely voluntary choice of avocations involves the abolition in all of anything like unhygienic conditions or special peril to life and limb. Health and safety are conditions common to all industries. The nation does not maim and slaughter its workmen by thousands, as did the private capitalists and corporations of your day."

"When there are more who want to enter a particular trade than there is room for, how do you decide between the applicants?" I inquired.

"Preference is given to those who have acquired the most knowledge of the trade they wish to follow. No man, however, who through successive years remains persistent in his desire to show what he can do at any particular trade, is in the end denied an opportunity. Meanwhile, if a man cannot at first win entrance into the business he prefers, he has usually one or more alternative preferences, pursuits for which he has some degree of aptitude, although not the highest. Every one, indeed, is expected to study his aptitudes so as to have not only a first choice as to occupation, but a second or third, so that if, either at the outset of his career or subsequently, owing to the progress of invention or changes in demand, he is unable to follow his first vocation, he can still find reasonably congenial employment. This principle of secondary choices as to occupation is quite important in our system. I should add, in reference to the counter-possibility of some sudden failure of volunteers in a particular trade, or some sudden necessity of an increased force, that the administration, while depending on the voluntary system for filling up the trades as a rule, holds always in reserve the power to call for special volunteers, or draft any force needed from any quarter. Generally, however, all needs of this sort can be met by details from the class of unskilled or common laborers."

"How is this class of common laborers recruited?" I asked. "Surely nobody voluntarily enters that."

"It is the grade to which all new recruits belong for the first three years of their service. It is not till after this period, during which he is assignable to any work at the discretion of his superiors, that the young man is allowed to elect a special avocation. These three years of stringent discipline none are exempt from, and very glad our young men are to pass from this severe school into the

comparative liberty of the trades. If a man were so stupid as to have no choice as to occupation, he would simply remain a common laborer; but such cases, as you may suppose, are not common."

"Having once elected and entered on a trade or occupation," I remarked, "I suppose he has to stick to it the rest of his life."

"Not necessarily," replied Dr. Leete; "while frequent and merely capricious changes of occupation are not encouraged or even permitted, every worker is allowed, of course, under certain regulations and in accordance with the exigencies of the service, to volunteer for another industry which he thinks would suit him better than his first choice. In this case his application is received just as if he were volunteering for the first time, and on the same terms. Not only this, but a worker may likewise, under suitable regulations and not too frequently, obtain a transfer to an establishment of the same industry in another part of the country which for any reason he may prefer. Under your system a discontented man could indeed leave his work at will, but he left his means of support at the same time, and took his chances as to future livelihood. We find that the number of men who wish to abandon an accustomed occupation for a new one, and old friends and associations for strange ones, is small. It is only the poorer sort of workmen who desire to change even as frequently as our regulations permit. Of course transfers or discharges, when health demands them, are always given."

"As an industrial system, I should think this might be extremely efficient," I said, "but I don't see that it makes any provision for the professional classes, the men who serve the nation with brains instead of hands. Of course you can't get along without the brain-workers. How, then, are they selected from those who are to serve as farmers and mechanics? That must require a very delicate sort of sifting process, I should say."

"So it does," replied Dr. Leete; "the most delicate possible test is needed here, and so we leave the question whether a man shall be a brain or hand worker entirely to him to settle. At the end of the term of three years as a common laborer, which every man must serve, it is for him to choose, in accordance to his natural tastes, whether he will fit himself for an art or profession, or be a farmer or mechanic. If he feels that he can do better work with his brains than his muscles, he finds every facility provided for testing the

reality of his supposed bent, of cultivating it, and if fit of pursuing it as his avocation. The schools of technology, of medicine, of art, of music, of histrionics, and of higher liberal learning are always open to aspirants without condition."

"Are not the schools flooded with young men whose only motive is to avoid work?"

Dr. Leete smiled a little grimly.

"No one is at all likely to enter the professional schools for the purpose of avoiding work, I assure you," he said. "They are intended for those with special aptitude for the branches they teach, and any one without it would find it easier to do double hours at his trade than try to keep up with the classes. Of course many honestly mistake their vocation, and, finding themselves unequal to the requirements of the schools, drop out and return to the industrial service; no discredit attaches to such persons, for the public policy is to encourage all to develop suspected talents which only actual tests can prove the reality of. The professional and scientific schools of your day depended on the patronage of their pupils for support, and the practice appears to have been common of giving diplomas to unfit persons, who afterwards found their way into the professions. Our schools are national institutions, and to have passed their tests is a proof of special abilities not to be questioned.

"This opportunity for a professional training," the doctor continued, "remains open to every man till the age of thirty is reached, after which students are not received, as there would remain too brief a period before the age of discharge in which to serve the nation in their professions. In your day young men had to choose their professions very young, and therefore, in a large proportion of instances, wholly mistook their vocations. It is recognized nowadays that the natural aptitudes of some are later than those of others in developing, and therefore, while the choice of profession may be made as early as twenty-four, it remains open for six years longer."

A question which had a dozen times before been on my lips now found utterance, a question which touched upon what, in my time, had been regarded the most vital difficulty in the way of any final settlement of the industrial problem. "It is an extraordinary thing," I said, "that you should not yet have said a word about the method of adjusting wages. Since the nation is the sole

employer, the government must fix the rate of wages and determine just how much everybody shall earn, from the doctors to the diggers. All I can say is, that this plan would never have worked with us, and I don't see how it can now unless human nature has changed. In my day, nobody was satisfied with his wages or salary. Even if he felt he received enough, he was sure his neighbor had too much, which was as bad. If the universal discontent on this subject, instead of being dissipated in curses and strikes directed against innumerable employers, could have been concentrated upon one, and that the government, the strongest ever devised would not have seen two pay days."

Dr. Leete laughed heartily.

"Very true, very true," he said, "a general strike would most probably have followed the first pay day, and a strike directed against a government is a revolution."

"How, then, do you avoid a revolution every pay day?" if demanded. "Has some prodigious philosopher devised a new system of calculus satisfactory to all for determining the exact and comparative value of all sorts of service, whether by brawn or brain, by hand or voice, by ear or eye? Or has human nature itself changed, so that no man looks upon his own things but 'every man on the things of his neighbor'? One or the other of these events must be the explanation."

"Neither one nor the other, however, is," was my host's laughing response. "And now, Mr. West," he continued, "you must remember that you are my patient as well as my guest, and permit me to prescribe sleep for you before we have any more conversation. It is after three o'clock."

"The prescription is, no doubt, a wise one," I said; "I only hope it can be filled."

"I will see to that," the doctor replied, and he did, for he gave me a wineglass of something or other which sent me to sleep as soon as my head touched the pillow.

CHAPTER 8

When I awoke I felt greatly refreshed, and lay a considerable time in a dozing state, enjoying the sensation of bodily comfort. The experiences of the day previous, my waking to find myself in the year 2000, the sight of the new Boston, my host and his family, and the wonderful things I had heard, were a blank in my memory. I thought I was in my bed-chamber at home, and the half-dreaming, half-waking fancies which passed before my mind related to the incidents and experiences of my former life. Dreamily I reviewed the incidents of Decoration Day, my trip in company with Edith and her parents to Mount Auburn, and my dining with them on our return to the city. I recalled how extremely well Edith had looked, and from that fell to thinking of our marriage; but scarcely had my imagination begun to develop this delightful theme than my waking dream was cut short by the recollection of the letter I had received the night before from the builder announcing that the new strikes might postpone indefinitely the completion of the new house. The chagrin which this recollection brought with it effectually roused me. I remembered that I had an appointment with the builder at eleven o'clock, to discuss the strike, and opening my eyes, looked up at the clock at the foot of my bed to see what time it was. But no clock met my glance, and what was more, I instantly perceived that I was not in my room. Starting up on my couch, I stared wildly round the strange apartment.

I think it must have been many seconds that I sat up thus in bed staring about, without being able to regain the clew to my personal identity. I was no more able to distinguish myself from pure being during those moments than we may suppose a soul in the rough to be before it has received the ear-marks, the individualizing touches which make it a person. Strange that the sense of this inability should be such anguish! but so we are constituted. There are no words for the mental torture I endured during this helpless, eyeless groping for myself in a boundless void. No other experience of the mind gives probably anything like the sense of absolute intellectual arrest from the loss of a mental fulcrum, a starting point of thought, which comes during such a momentary obscuration of the sense of one's identity. I trust I may never know what it is again.

I do not know how long this condition had lasted—it seemed an

interminable time—when, like a flash, the recollection of everything came back to me. I remembered who and where I was, and how I had come here, and that these scenes as of the life of yesterday which had been passing before my mind concerned a generation long, long ago mouldered to dust. Leaping from bed, I stood in the middle of the room clasping my temples with all my might between my hands to keep them from bursting. Then I fell prone on the couch, and, burying my face in the pillow, lay without motion. The reaction which was inevitable, from the mental elation, the fever of the intellect that had been the first effect of my tremendous experience, had arrived. The emotional crisis which had awaited the full realization of my actual position, and all that it implied, was upon me, and with set teeth and laboring chest, gripping the bedstead with frenzied strength, I lay there and fought for my sanity. In my mind, all had broken loose, habits of feeling, associations of thought, ideas of persons and things, all had dissolved and lost coherence and were seething together in apparently irretrievable chaos. There were no rallying points, nothing was left stable. There only remained the will, and was any human will strong enough to say to such a weltering sea, "Peace, be still"? I dared not think. Every effort to reason upon what had befallen me, and realize what it implied, set up an intolerable swimming of the brain. The idea that I was two persons, that my identity was double, began to fascinate me with its simple solution of my experience.

I knew that I was on the verge of losing my mental balance. If I lay there thinking, I was doomed. Diversion of some sort I must have, at least the diversion of physical exertion. I sprang up, and, hastily dressing, opened the door of my room and went down-stairs. The hour was very early, it being not yet fairly light, and I found no one in the lower part of the house. There was a hat in the hall, and, opening the front door, which was fastened with a slightness indicating that burglary was not among the perils of the modern Boston, I found myself on the street. For two hours I walked or ran through the streets of the city, visiting most quarters of the peninsular part of the town. None but an antiquarian who knows something of the contrast which the Boston of today offers to the Boston of the nineteenth century can begin to appreciate what a series of bewildering surprises I underwent during that time. Viewed from the house-top the day before, the city had indeed appeared strange to me, but that

was only in its general aspect. How complete the change had been I first realized now that I walked the streets. The few old landmarks which still remained only intensified this effect, for without them I might have imagined myself in a foreign town. A man may leave his native city in childhood, and return fifty years later, perhaps, to find it transformed in many features. He is astonished, but he is not bewildered. He is aware of a great lapse of time, and of changes likewise occurring in himself meanwhile. He but dimly recalls the city as he knew it when a child. But remember that there was no sense of any lapse of time with me. So far as my consciousness was concerned, it was but yesterday, but a few hours, since I had walked these streets in which scarcely a feature had escaped a complete metamorphosis. The mental image of the old city was so fresh and strong that it did not yield to the impression of the actual city, but contended with it, so that it was first one and then the other which seemed the more unreal. There was nothing I saw which was not blurred in this way, like the faces of a composite photograph.

Finally, I stood again at the door of the house from which I had come out. My feet must have instinctively brought me back to the site of my old home, for I had no clear idea of returning thither. It was no more homelike to me than any other spot in this city of a strange generation, nor were its inmates less utterly and necessarily strangers than all the other men and women now on the earth. Had the door of the house been locked, I should have been reminded by its resistance that I had no object in entering, and turned away, but it yielded to my hand, and advancing with uncertain steps through the hall, I entered one of the apartments opening from it. Throwing myself into a chair, I covered my burning eyeballs with my hands to shut out the horror of strangeness. My mental confusion was so intense as to produce actual nausea. The anguish of those moments, during which my brain seemed melting, or the abjectness of my sense of helplessness, how can I describe? In my despair I groaned aloud. I began to feel that unless some help should come I was about to lose my mind. And just then it did come. I heard the rustle of drapery, and looked up. Edith Leete was standing before me. Her beautiful face was full of the most poignant sympathy.

"Oh, what is the matter, Mr. West?" she said. "I was here when you came in. I saw how dreadfully distressed you looked, and when I heard you groan, I could not keep silent. What has happened to you? Where have you been? Can't

I do something for you?"

Perhaps she involuntarily held out her hands in a gesture of compassion as she spoke. At any rate I had caught them in my own and was clinging to them with an impulse as instinctive as that which prompts the drowning man to seize upon and cling to the rope which is thrown him as he sinks for the last time. As I looked up into her compassionate face and her eyes moist with pity, my brain ceased to whirl. The tender human sympathy which thrilled in the soft pressure of her fingers had brought me the support I needed. Its effect to calm and soothe was like that of some wonder-working elixir.

"God bless you," I said, after a few moments. "He must have sent you to me just now. I think I was in danger of going crazy if you had not come." At this the tears came into her eyes.

"Oh, Mr. West!" she cried. "How heartless you must have thought us! How could we leave you to yourself so long! But it is over now, is it not? You are better, surely."

"Yes," I said, "thanks to you. If you will not go away quite yet, I shall be myself soon."

"Indeed I will not go away," she said, with a little quiver of her face, more expressive of her sympathy than a volume of words. "You must not think us so heartless as we seemed in leaving you so by yourself. I scarcely slept last night, for thinking how strange your waking would be this morning; but father said you would sleep till late. He said that it would be better not to show too much sympathy with you at first, but to try to divert your thoughts and make you feel that you were among friends."

"You have indeed made me feel that," I answered. "But you see it is a good deal of a jolt to drop a hundred years, and although I did not seem to feel it so much last night, I have had very odd sensations this morning." While I held her hands and kept my eyes on her face, I could already even jest a little at my plight.

"No one thought of such a thing as your going out in the city alone so early in the morning," she went on. "Oh, Mr. West, where have you been?"

Then I told her of my morning's experience, from my first waking till the moment I had looked up to see her before me, just as I have told it here. She was overcome by distressful pity during the recital, and, though I had released

one of her hands, did not try to take from me the other, seeing, no doubt, how much good it did me to hold it. "I can think a little what this feeling must have been like," she said. "It must have been terrible. And to think you were left alone to struggle with it! Can you ever forgive us?"

"But it is gone now. You have driven it quite away for the present," I said.

"You will not let it return again," she queried anxiously.

"I can't quite say that," I replied. "It might be too early to say that, considering how strange everything will still be to me."

"But you will not try to contend with it alone again, at least," she persisted. "Promise that you will come to us, and let us sympathize with you, and try to help you. Perhaps we can't do much, but it will surely be better than to try to bear such feelings alone."

"I will come to you if you will let me," I said.

"Oh yes, yes, I beg you will," she said eagerly. "I would do anything to help you that I could."

"All you need do is to be sorry for me, as you seem to be now," I replied.

"It is understood, then," she said, smiling with wet eyes, "that you are to come and tell me next time, and not run all over Boston among strangers."

This assumption that we were not strangers seemed scarcely strange, so near within these few minutes had my trouble and her sympathetic tears brought us.

"I will promise, when you come to me," she added, with an expression of charming archness, passing, as she continued, into one of enthusiasm, "to seem as sorry for you as you wish, but you must not for a moment suppose that I am really sorry for you at all, or that I think you will long be sorry for yourself. I know, as well as I know that the world now is heaven compared with what it was in your day, that the only feeling you will have after a little while will be one of thankfulness to God that your life in that age was so strangely cut off, to be returned to you in this."

CHAPTER 9

Dr. and Mrs. Leete were evidently not a little startled to learn, when they presently appeared, that I had been all over the city alone that morning, and it was apparent that they were agreeably surprised to see that I seemed so little agitated after the experience.

"Your stroll could scarcely have failed to be a very interesting one," said Mrs. Leete, as we sat down to table soon after. "You must have seen a good many new things."

"I saw very little that was not new," I replied. "But I think what surprised me as much as anything was not to find any stores on Washington Street, or any banks on State. What have you done with the merchants and bankers? Hung them all, perhaps, as the anarchists wanted to do in my day?"

"Not so bad as that," replied Dr. Leete. "We have simply dispensed with them. Their functions are obsolete in the modern world."

"Who sells you things when you want to buy them?" I inquired.

"There is neither selling nor buying nowadays; the distribution of goods is effected in another way. As to the bankers, having no money we have no use for those gentry."

"Miss Leete," said I, turning to Edith, "I am afraid that your father is making sport of me. I don't blame him, for the temptation my innocence offers must be extraordinary. But, really, there are limits to my credulity as to possible alterations in the social system."

"Father has no idea of jesting, I am sure," she replied, with a reassuring smile.

The conversation took another turn then, the point of ladies' fashions in the nineteenth century being raised, if I remember rightly, by Mrs. Leete, and it was not till after breakfast, when the doctor had invited me up to the house-top, which appeared to be a favorite resort of his, that he recurred to the subject.

"You were surprised," he said, "at my saying that we got along without money or trade, but a moment's reflection will show that trade existed and money was needed in your day simply because the business of production was left in private hands, and that, consequently, they are superfluous now."

"I do not at once see how that follows," I replied.

"It is very simple," said Dr. Leete. "When innumerable different and independent persons produced the various things needful to life and comfort, endless exchanges between individuals were requisite in order that they might supply themselves with what they desired. These exchanges constituted trade, and money was essential as their medium. But as soon as the nation became the sole producer of all sorts of commodities, there was no need of exchanges between individuals that they might get what they required. Everything was procurable from one source, and nothing could be procured anywhere else. A system of direct distribution from the national storehouses took the place of trade, and for this money was unnecessary."

"How is this distribution managed?" I asked.

"On the simplest possible plan," replied Dr. Leete. "A credit corresponding to his share of the annual product of the nation is given to every citizen on the public books at the beginning of each year, and a credit card issued him with which he procures at the public storehouses, found in every community, whatever he desires whenever he desires it. This arrangement, you will see, totally obviates the necessity for business transactions of any sort between individuals and consumers. Perhaps you would like to see what our credit cards are like.

"You observe," he pursued as I was curiously examining the piece of pasteboard he gave me, "that this card is issued for a certain number of dollars. We have kept the old word, but not the substance. The term, as we use it, answers to no real thing, but merely serves as an algebraical symbol for comparing the values of products with one another. For this purpose they are all priced in dollars and cents, just as in your day. The value of what I procure on this card is checked off by the clerk, who pricks out of these tiers of squares the price of what I order."

"If you wanted to buy something of your neighbor, could you transfer part of your credit to him as consideration?" I inquired.

"In the first place," replied Dr. Leete, "our neighbors have nothing to sell us, but in any event our credit would not be transferable, being strictly personal. Before the nation could even think of honoring any such transfer as you speak of, it would be bound to inquire into all the circumstances of the transaction, so as to be able to guarantee its absolute equity. It would have been reason

enough, had there been no other, for abolishing money, that its possession was no indication of rightful title to it. In the hands of the man who had stolen it or murdered for it, it was as good as in those which had earned it by industry. People nowadays interchange gifts and favors out of friendship, but buying and selling is considered absolutely inconsistent with the mutual benevolence and disinterestedness which should prevail between citizens and the sense of community of interest which supports our social system. According to our ideas, buying and selling is essentially anti-social in all its tendencies. It is an education in self-seeking at the expense of others, and no society whose citizens are trained in such a school can possibly rise above a very low grade of civilization."

"What if you have to spend more than your card in any one year?" I asked.

"The provision is so ample that we are more likely not to spend it all," replied Dr. Leete. "But if extraordinary expenses should exhaust it, we can obtain a limited advance on the next year's credit, though this practice is not encouraged, and a heavy discount is charged to check it. Of course if a man showed himself a reckless spendthrift he would receive his allowance monthly or weekly instead of yearly, or if necessary not be permitted to handle it all."

"If you don't spend your allowance, I suppose it accumulates?"

"That is also permitted to a certain extent when a special outlay is anticipated. But unless notice to the contrary is given, it is presumed that the citizen who does not fully expend his credit did not have occasion to do so, and the balance is turned into the general surplus."

"Such a system does not encourage saving habits on the part of citizens," I said.

"It is not intended to," was the reply. "The nation is rich, and does not wish the people to deprive themselves of any good thing. In your day, men were bound to lay up goods and money against coming failure of the means of support and for their children. This necessity made parsimony a virtue. But now it would have no such laudable object, and, having lost its utility, it has ceased to be regarded as a virtue. No man any more has any care for the morrow, either for himself or his children, for the nation guarantees the nurture, education, and comfortable maintenance of every citizen from the cradle to the grave."

"That is a sweeping guarantee!" I said. "What certainty can there be that

the value of a man's labor will recompense the nation for its outlay on him? On the whole, society may be able to support all its members, but some must earn less than enough for their support, and others more; and that brings us back once more to the wages question, on which you have hitherto said nothing. It was at just this point, if you remember, that our talk ended last evening; and I say again, as I did then, that here I should suppose a national industrial system like yours would find its main difficulty. How, I ask once more, can you adjust satisfactorily the comparative wages or remuneration of the multitude of avocations, so unlike and so incommensurable, which are necessary for the service of society? In our day the market rate determined the price of labor of all sorts, as well as of goods. The employer paid as little as he could, and the worker got as much. It was not a pretty system ethically, I admit; but it did, at least, furnish us a rough and ready formula for settling a question which must be settled ten thousand times a day if the world was ever going to get forward. There seemed to us no other practicable way of doing it."

"Yes," replied Dr. Leete, "it was the only practicable way under a system which made the interests of every individual antagonistic to those of every other; but it would have been a pity if humanity could never have devised a better plan, for yours was simply the application to the mutual relations of men of the devil's maxim, 'Your necessity is my opportunity.' The reward of any service depended not upon its difficulty, danger, or hardship, for throughout the world it seems that the most perilous, severe, and repulsive labor was done by the worst paid classes; but solely upon the strait of those who needed the service."

"All that is conceded," I said. "But, with all its defects, the plan of settling prices by the market rate was a practical plan; and I cannot conceive what satisfactory substitute you can have devised for it. The government being the only possible employer, there is of course no labor market or market rate. Wages of all sorts must be arbitrarily fixed by the government. I cannot imagine a more complex and delicate function than that must be, or one, however performed, more certain to breed universal dissatisfaction."

"I beg your pardon," replied Dr. Leete, "but I think you exaggerate the difficulty. Suppose a board of fairly sensible men were charged with settling the wages for all sorts of trades under a system which, like ours, guaranteed

employment to all, while permitting the choice of avocations. Don't you see that, however unsatisfactory the first adjustment might be, the mistakes would soon correct themselves? The favored trades would have too many volunteers, and those discriminated against would lack them till the errors were set right. But this is aside from the purpose, for, though this plan would, I fancy, be practicable enough, it is no part of our system."

"How, then, do you regulate wages?" I once more asked.

Dr. Leete did not reply till after several moments of meditative silence. "I know, of course," he finally said, "enough of the old order of things to understand just what you mean by that question; and yet the present order is so utterly different at this point that I am a little at loss how to answer you best. You ask me how we regulate wages; I can only reply that there is no idea in the modern social economy which at all corresponds with what was meant by wages in your day."

"I suppose you mean that you have no money to pay wages in," said I. "But the credit given the worker at the government storehouse answers to his wages with us. How is the amount of the credit given respectively to the workers in different lines determined? By what title does the individual claim his particular share? What is the basis of allotment?"

"His title," replied Dr. Leete, "is his humanity. The basis of his claim is the fact that he is a man."

"The fact that he is a man!" I repeated, incredulously. "Do you possibly mean that all have the same share?"

"Most assuredly."

The readers of this book never having practically known any other arrangement, or perhaps very carefully considered the historical accounts of former epochs in which a very different system prevailed, cannot be expected to appreciate the stupor of amazement into which Dr. Leete's simple statement plunged me.

"You see," he said, smiling, "that it is not merely that we have no money to pay wages in, but, as I said, we have nothing at all answering to your idea of wages."

By this time I had pulled myself together sufficiently to voice some of the criticisms which, man of the nineteenth century as I was, came uppermost in my

mind, upon this to me astounding arrangement. "Some men do twice the work of others!" I exclaimed. "Are the clever workmen content with a plan that ranks them with the indifferent?"

"We leave no possible ground for any complaint of injustice," replied Dr. Leete, "by requiring precisely the same measure of service from all."

"How can you do that, I should like to know, when no two men's powers are the same?"

"Nothing could be simpler," was Dr. Leete's reply. "We require of each that he shall make the same effort; that is, we demand of him the best service it is in his power to give."

"And supposing all do the best they can," I answered, "the amount of the product resulting is twice greater from one man than from another."

"Very true," replied Dr. Leete; "but the amount of the resulting product has nothing whatever to do with the question, which is one of desert. Desert is a moral question, and the amount of the product a material quantity. It would be an extraordinary sort of logic which should try to determine a moral question by a material standard. The amount of the effort alone is pertinent to the question of desert. All men who do their best, do the same. A man's endowments, however godlike, merely fix the measure of his duty. The man of great endowments who does not do all he might, though he may do more than a man of small endowments who does his best, is deemed a less deserving worker than the latter, and dies a debtor to his fellows. The Creator sets men's tasks for them by the faculties he gives them; we simply exact their fulfillment."

"No doubt that is very fine philosophy," I said; "nevertheless it seems hard that the man who produces twice as much as another, even if both do their best, should have only the same share."

"Does it, indeed, seem so to you?" responded Dr. Leete. "Now, do you know, that seems very curious to me? The way it strikes people nowadays is, that a man who can produce twice as much as another with the same effort, instead of being rewarded for doing so, ought to be punished if he does not do so. In the nineteenth century, when a horse pulled a heavier load than a goat, I suppose you rewarded him. Now, we should have whipped him soundly if he had not, on the ground that, being much stronger, he ought to. It is singular how ethical standards change." The doctor said this with such a twinkle in his eye

that I was obliged to laugh.

"I suppose," I said, "that the real reason that we rewarded men for their endowments, while we considered those of horses and goats merely as fixing the service to be severally required of them, was that the animals, not being reasoning beings, naturally did the best they could, whereas men could only be induced to do so by rewarding them according to the amount of their product. That brings me to ask why, unless human nature has mightily changed in a hundred years, you are not under the same necessity."

"We are," replied Dr. Leete. "I don't think there has been any change in human nature in that respect since your day. It is still so constituted that special incentives in the form of prizes, and advantages to be gained, are requisite to call out the best endeavors of the average man in any direction."

"But what inducement," I asked, "can a man have to put forth his best endeavors when, however much or little he accomplishes, his income remains the same? High characters may be moved by devotion to the common welfare under such a system, but does not the average man tend to rest back on his oar, reasoning that it is of no use to make a special effort, since the effort will not increase his income, nor its withholding diminish it?"

"Does it then really seem to you," answered my companion, "that human nature is insensible to any motives save fear of want and love of luxury, that you should expect security and equality of livelihood to leave them without possible incentives to effort? Your contemporaries did not really think so, though they might fancy they did. When it was a question of the grandest class of efforts, the most absolute self-devotion, they depended on quite other incentives. Not higher wages, but honor and the hope of men's gratitude, patriotism and the inspiration of duty, were the motives which they set before their soldiers when it was a question of dying for the nation, and never was there an age of the world when those motives did not call out what is best and noblest in men. And not only this, but when you come to analyze the love of money which was the general impulse to effort in your day, you find that the dread of want and desire of luxury was but one of several motives which the pursuit of money represented; the others, and with many the more influential, being desire of power, of social position, and reputation for ability and success. So you see that though we have abolished poverty and the fear of it, and inordinate luxury with

the hope of it, we have not touched the greater part of the motives which underlay the love of money in former times, or any of those which prompted the supremer sorts of effort. The coarser motives, which no longer move us, have been replaced by higher motives wholly unknown to the mere wage earners of your age. Now that industry of whatever sort is no longer self-service, but service of the nation, patriotism, passion for humanity, impel the worker as in your day they did the soldier. The army of industry is an army, not alone by virtue of its perfect organization, but by reason also of the ardor of self-devotion which animates its members.

"But as you used to supplement the motives of patriotism with the love of glory, in order to stimulate the valor of your soldiers, so do we. Based as our industrial system is on the principle of requiring the same unit of effort from every man, that is, the best he can do, you will see that the means by which we spur the workers to do their best must be a very essential part of our scheme. With us, diligence in the national service is the sole and certain way to public repute, social distinction, and official power. The value of a man's services to society fixes his rank in it. Compared with the effect of our social arrangements in impelling men to be zealous in business, we deem the object-lessons of biting poverty and wanton luxury on which you depended a device as weak and uncertain as it was barbaric. The lust of honor even in your sordid day notoriously impelled men to more desperate effort than the love of money could."

"I should be extremely interested," I said, "to learn something of what these social arrangements are."

"The scheme in its details," replied the doctor, "is of course very elaborate, for it underlies the entire organization of our industrial army; but a few words will give you a general idea of it."

At this moment our talk was charmingly interrupted by the emergence upon the aerial platform where we sat of Edith Leete. She was dressed for the street, and had come to speak to her father about some commission she was to do for him.

"By the way, Edith," he exclaimed, as she was about to leave us to ourselves, "I wonder if Mr. West would not be interested in visiting the store with you? I have been telling him something about our system of distribution,

and perhaps he might like to see it in practical operation."

"My daughter," he added, turning to me, "is an indefatigable shopper, and can tell you more about the stores than I can."

The proposition was naturally very agreeable to me, and Edith being good enough to say that she should be glad to have my company, we left the house together.

CHAPTER 10

"If I am going to explain our way of shopping to you," said my companion, as we walked along the street, "you must explain your way to me. I have never been able to understand it from all I have read on the subject. For example, when you had such a vast number of shops, each with its different assortment, how could a lady ever settle upon any purchase till she had visited all the shops? for, until she had, she could not know what there was to choose from."

"It was as you suppose; that was the only way she could know," I replied.

"Father calls me an indefatigable shopper, but I should soon be a very fatigued one if I had to do as they did," was Edith's laughing comment.

"The loss of time in going from shop to shop was indeed a waste which the busy bitterly complained of," I said; "but as for the ladies of the idle class, though they complained also, I think the system was really a godsend by furnishing a device to kill time."

"But say there were a thousand shops in a city, hundreds, perhaps, of the same sort, how could even the idlest find time to make their rounds?"

"They really could not visit all, of course," I replied. "Those who did a great deal of buying, learned in time where they might expect to find what they wanted. This class had made a science of the specialties of the shops, and bought at advantage, always getting the most and best for the least money. It required, however, long experience to acquire this knowledge. Those who were too busy, or bought too little to gain it, took their chances and were generally unfortunate, getting the least and worst for the most money. It was the merest chance if persons not experienced in shopping received the value of their money."

"But why did you put up with such a shockingly inconvenient arrangement when you saw its faults so plainly?" Edith asked me.

"It was like all our social arrangements," I replied. "You can see their faults scarcely more plainly than we did, but we saw no remedy for them."

"Here we are at the store of our ward," said Edith, as we turned in at the great portal of one of the magnificent public buildings I had observed in my morning walk. There was nothing in the exterior aspect of the edifice to suggest a store to a representative of the nineteenth century. There was no display of

goods in the great windows, or any device to advertise wares, or attract custom. Nor was there any sort of sign or legend on the front of the building to indicate the character of the business carried on there; but instead, above the portal, standing out from the front of the building, a majestic life-size group of statuary, the central figure of which was a female ideal of Plenty, with her cornucopia. Judging from the composition of the throng passing in and out, about the same proportion of the sexes among shoppers obtained as in the nineteenth century. As we entered, Edith said that there was one of these great distributing establishments in each ward of the city, so that no residence was more than five or ten minutes' walk from one of them. It was the first interior of a twentieth-century public building that I had ever beheld, and the spectacle naturally impressed me deeply. I was in a vast hall full of light, received not alone from the windows on all sides, but from the dome, the point of which was a hundred feet above. Beneath it, in the centre of the hall, a magnificent fountain played, cooling the atmosphere to a delicious freshness with its spray. The walls and ceiling were frescoed in mellow tints, calculated to soften without absorbing the light which flooded the interior. Around the fountain was a space occupied with chairs and sofas, on which many persons were seated conversing. Legends on the walls all about the hall indicated to what classes of commodities the counters below were devoted. Edith directed her steps towards one of these, where samples of muslin of a bewildering variety were displayed, and proceeded to inspect them.

"Where is the clerk?" I asked, for there was no one behind the counter, and no one seemed coming to attend to the customer.

"I have no need of the clerk yet," said Edith; "I have not made my selection."

"It was the principal business of clerks to help people to make their selections in my day," I replied.

"What! To tell people what they wanted?"

"Yes; and oftener to induce them to buy what they didn't want."

"But did not ladies find that very impertinent?" Edith asked, wonderingly. "What concern could it possibly be to the clerks whether people bought or not?"

"It was their sole concern," I answered. "They were hired for the purpose of

getting rid of the goods, and were expected to do their utmost, short of the use of force, to compass that end."

"Ah, yes! How stupid I am to forget!" said Edith. "The storekeeper and his clerks depended for their livelihood on selling the goods in your day. Of course that is all different now. The goods are the nation's. They are here for those who want them, and it is the business of the clerks to wait on people and take their orders; but it is not the interest of the clerk or the nation to dispose of a yard or a pound of anything to anybody who does not want it." She smiled as she added, "How exceedingly odd it must have seemed to have clerks trying to induce one to take what one did not want, or was doubtful about!"

"But even a twentieth century clerk might make himself useful in giving you information about the goods, though he did not tease you to buy them," I suggested.

"No," said Edith, "that is not the business of the clerk. These printed cards, for which the government authorities are responsible, give us all the information we can possibly need."

I saw then that there was fastened to each sample a card containing in succinct form a complete statement of the make and materials of the goods and all its qualities, as well as price, leaving absolutely no point to hang a question on.

"The clerk has, then, nothing to say about the goods he sells?" I said.

"Nothing at all. It is not necessary that he should know or profess to know anything about them. Courtesy and accuracy in taking orders are all that are required of him."

"What a prodigious amount of lying that simple arrangement saves!" I ejaculated.

"Do you mean that all the clerks misrepresented their goods in your day?" Edith asked.

"God forbid that I should say so!" I replied, "for there were many who did not, and they were entitled to especial credit, for when one's livelihood and that of his wife and babies depended on the amount of goods he could dispose of, the temptation to deceive the customer—or let him deceive himself—was wellnigh overwhelming. But, Miss Leete, I am distracting you from your task with my talk."

"Not at all. I have made my selections." With that she touched a button, and in a moment a clerk appeared. He took down her order on a tablet with a pencil which made two copies, of which he gave one to her, and enclosing the counterpart in a small receptacle, dropped it into a transmitting tube.

"The duplicate of the order," said Edith as she turned away from the counter, after the clerk had punched the value of her purchase out of the credit card she gave him, "is given to the purchaser, so that any mistakes in filling it can be easily traced and rectified."

"You were very quick about your selections," I said. "May I ask how you knew that you might not have found something to suit you better in some of the other stores? But probably you are required to buy in your own district."

"Oh, no," she replied. "We buy where we please, though naturally most often near home. But I should have gained nothing by visiting other stores. The assortment in all is exactly the same, representing as it does in each case samples of all the varieties produced or imported by the United States. That is why one can decide quickly, and never need visit two stores."

"And is this merely a sample store? I see no clerks cutting off goods or marking bundles."

"All our stores are sample stores, except as to a few classes of articles. The goods, with these exceptions, are all at the great central warehouse of the city, to which they are shipped directly from the producers. We order from the sample and the printed statement of texture, make, and qualities. The orders are sent to the warehouse, and the goods distributed from there."

"That must be a tremendous saving of handling," I said. "By our system, the manufacturer sold to the wholesaler, the wholesaler to the retailer, and the retailer to the consumer, and the goods had to be handled each time. You avoid one handling of the goods, and eliminate the retailer altogether, with his big profit and the army of clerks it goes to support. Why, Miss Leete, this store is merely the order department of a wholesale house, with no more than a wholesaler's complement of clerks. Under our system of handling the goods, persuading the customer to buy them, cutting them off, and packing them, ten clerks would not do what one does here. The saving must be enormous."

"I suppose so," said Edith, "but of course we have never known any other way. But, Mr. West, you must not fail to ask father to take you to the central

warehouse some day, where they receive the orders from the different sample houses all over the city and parcel out and send the goods to their destinations. He took me there not long ago, and it was a wonderful sight. The system is certainly perfect; for example, over yonder in that sort of cage is the dispatching clerk. The orders, as they are taken by the different departments in the store, are sent by transmitters to him. His assistants sort them and enclose each class in a carrier-box by itself. The dispatching clerk has a dozen pneumatic transmitters before him answering to the general classes of goods, each communicating with the corresponding department at the warehouse. He drops the box of orders into the tube it calls for, and in a few moments later it drops on the proper desk in the warehouse, together with all the orders of the same sort from the other sample stores. The orders are read off, recorded, and sent to be filled, like lightning. The filling I thought the most interesting part. Bales of cloth are placed on spindles and turned by machinery, and the cutter, who also has a machine, works right through one bale after another till exhausted, when another man takes his place; and it is the same with those who fill the orders in any other staple. The packages are then delivered by larger tubes to the city districts, and thence distributed to the houses. You may understand how quickly it is all done when I tell you that my order will probably be at home sooner than I could have carried it from here."

"How do you manage in the thinly settled rural districts?" I asked.

"The system is the same," Edith explained; "the village sample shops are connected by transmitters with the central county warehouse, which may be twenty miles away. The transmission is so swift, though, that the time lost on the way is trifling. But, to save expense, in many counties one set of tubes connect several villages with the warehouse, and then there is time lost waiting for one another. Sometimes it is two or three hours before goods ordered are received. It was so where I was staying last summer, and I found it quite inconvenient."[1]

"There must be many other respects also, no doubt, in which the country stores are inferior to the city stores," I suggested.

"No," Edith answered, "they are otherwise precisely as good. The sample shop of the smallest village, just like this one, gives you your choice of all the varieties of goods the nation has, for the county warehouse draws on the same source as the city warehouse."

As we walked home I commented on the great variety in the size and cost of the houses. “How is it,” I asked, “that this difference is consistent with the fact that all citizens have the same income?”

“Because,” Edith explained, “although the income is the same, personal taste determines how the individual shall spend it. Some like fine horses; others, like myself, prefer pretty clothes; and still others want an elaborate table. The rents which the nation receives for these houses vary, according to size, elegance, and location, so that everybody can find something to suit. The larger houses are usually occupied by large families, in which there are several to contribute to the rent; while small families, like ours, find smaller houses more convenient and economical. It is a matter of taste and convenience wholly. I have read that in old times people often kept up establishments and did other things which they could not afford for ostentation, to make people think them richer than they were. Was it really so, Mr. West?”

“I shall have to admit that it was,” I replied.

“Well, you see, it could not be so nowadays; for everybody’s income is known, and it is known that what is spent one way must be saved another.”

[1] I am informed since the above is in type that this lack of perfection in the distributing service of some of the country districts is to be remedied, and that soon every village will have its own set of tubes.

CHAPTER 11

When we arrived home, Dr. Leete had not yet returned, and Mrs. Leete was not visible. "Are you fond of music, Mr. West?" Edith asked.

I assured her that it was half of life, according to my notion.

"I ought to apologize for inquiring," she said. "It is not a question that we ask one another nowadays; but I have read that in your day, even among the cultured class, there were some who did not care for music."

"You must remember, in excuse," I said, "that we had some rather absurd kinds of music."

"Yes," she said, "I know that; I am afraid I should not have fancied it all myself. Would you like to hear some of ours now, Mr. West?"

"Nothing would delight me so much as to listen to you," I said.

"To me!" she exclaimed, laughing. "Did you think I was going to play or sing to you?"

"I hoped so, certainly," I replied.

Seeing that I was a little abashed, she subdued her merriment and explained. "Of course, we all sing nowadays as a matter of course in the training of the voice, and some learn to play instruments for their private amusement; but the professional music is so much grander and more perfect than any performance of ours, and so easily commanded when we wish to hear it, that we don't think of calling our singing or playing music at all. All the really fine singers and players are in the musical service, and the rest of us hold our peace for the main part. But would you really like to hear some music?"

I assured her once more that I would.

"Come, then, into the music room," she said, and I followed her into an apartment finished, without hangings, in wood, with a floor of polished wood. I was prepared for new devices in musical instruments, but I saw nothing in the room which by any stretch of imagination could be conceived as such. It was evident that my puzzled appearance was affording intense amusement to Edith.

"Please look at to-day's music," she said, handing me a card, "and tell me what you would prefer. It is now five o'clock, you will remember."

The card bore the date "September 12, 2000," and contained the longest programme of music I had ever seen. It was as various as it was long, including

a most extraordinary range of vocal and instrumental solos, duets, quartettes, and various orchestral combinations. I remained bewildered by the prodigious list until Edith's pink finger tip indicated a particular section of it, where several selections were bracketed, with the words "5 P.M." against them; then I observed that this prodigious programme was an all-day one, divided into twenty-four sections answering to the hours. There were but a few pieces of music in the "5 P.M." section, and I indicated an organ piece as my preference.

"I am so glad you like the organ," said she. "I think there is scarcely any music that suits my mood oftener."

She made me sit down comfortably, and, crossing the room, so far as I could see, merely touched one or two screws, and at once the room was filled with the music of a grand organ anthem; filled, not flooded, for, by some means, the volume of melody had been perfectly graduated to the size of the apartment. I listened, scarcely breathing, to the close. Such music, so perfectly rendered, I had never expected to hear.

"Grand!" I cried, as the last great wave of sound broke and ebbed away into silence. "Bach must be at the keys of that organ; but where is the organ?"

"Wait a moment, please," said Edith; "I want to have you listen to this waltz before you ask any questions. I think it is perfectly charming"; and as she spoke the sound of violins filled the room with the witchery of a summer night. When this had also ceased, she said: "There is nothing in the least mysterious about the music, as you seem to imagine. It is not made by fairies or genii, but by good, honest, and exceedingly clever human hands. We have simply carried the idea of labor saving by cooperation into our musical service as into everything else. There are a number of music rooms in the city, perfectly adapted acoustically to the different sorts of music. These halls are connected by telephone with all the houses of the city whose people care to pay the small fee, and there are none, you may be sure, who do not. The corps of musicians attached to each hall is so large that, although no individual performer, or group of performers, has more than a brief part, each day's programme lasts through the twenty-four hours. There are on that card for to-day, as you will see if you observe closely, distinct programmes of four of these concerts, each of a different order of music from the others, being now simultaneously performed, and any one of the four pieces now going on that you prefer, you can hear by

merely pressing the button which will connect your house-wire with the hall where it is being rendered. The programmes are so coordinated that the pieces at any one time simultaneously proceeding in the different halls usually offer a choice, not only between instrumental and vocal, and between different sorts of instruments; but also between different motives from grave to gay, so that all tastes and moods can be suited."

"It appears to me, Miss Leete," I said, "that if we could have devised an arrangement for providing everybody with music in their homes, perfect in quality, unlimited in quantity, suited to every mood, and beginning and ceasing at will, we should have considered the limit of human felicity already attained, and ceased to strive for further improvements."

"I am sure I never could imagine how those among you who depended at all on music managed to endure the old-fashioned system for providing it," replied Edith. "Music really worth hearing must have been, I suppose, wholly out of the reach of the masses, and attainable by the most favored only occasionally, at great trouble, prodigious expense, and then for brief periods, arbitrarily fixed by somebody else, and in connection with all sorts of undesirable circumstances. Your concerts, for instance, and operas! How perfectly exasperating it must have been, for the sake of a piece or two of music that suited you, to have to sit for hours listening to what you did not care for! Now, at a dinner one can skip the courses one does not care for. Who would ever dine, however hungry, if required to eat everything brought on the table? and I am sure one's hearing is quite as sensitive as one's taste. I suppose it was these difficulties in the way of commanding really good music which made you endure so much playing and singing in your homes by people who had only the rudiments of the art."

"Yes," I replied, "it was that sort of music or none for most of us.

"Ah, well," Edith sighed, "when one really considers, it is not so strange that people in those days so often did not care for music. I dare say I should have detested it, too."

"Did I understand you rightly," I inquired, "that this musical programme covers the entire twenty-four hours? It seems to on this card, certainly; but who is there to listen to music between say midnight and morning?"

"Oh, many," Edith replied. "Our people keep all hours; but if the music were provided from midnight to morning for no others, it still would be for the

sleepless, the sick, and the dying. All our bedchambers have a telephone attachment at the head of the bed by which any person who may be sleepless can command music at pleasure, of the sort suited to the mood."

"Is there such an arrangement in the room assigned to me?"

"Why, certainly; and how stupid, how very stupid, of me not to think to tell you of that last night! Father will show you about the adjustment before you go to bed to-night, however; and with the receiver at your ear, I am quite sure you will be able to snap your fingers at all sorts of uncanny feelings if they trouble you again."

That evening Dr. Leete asked us about our visit to the store, and in the course of the desultory comparison of the ways of the nineteenth century and the twentieth, which followed, something raised the question of inheritance. "I suppose," I said, "the inheritance of property is not now allowed."

"On the contrary," replied Dr. Leete, "there is no interference with it. In fact, you will find, Mr. West, as you come to know us, that there is far less interference of any sort with personal liberty nowadays than you were accustomed to. We require, indeed, by law that every man shall serve the nation for a fixed period, instead of leaving him his choice, as you did, between working, stealing, or starving. With the exception of this fundamental law, which is, indeed, merely a codification of the law of nature—the edict of Eden—by which it is made equal in its pressure on men, our system depends in no particular upon legislation, but is entirely voluntary, the logical outcome of the operation of human nature under rational conditions. This question of inheritance illustrates just that point. The fact that the nation is the sole capitalist and land-owner of course restricts the individual's possessions to his annual credit, and what personal and household belongings he may have procured with it. His credit, like an annuity in your day, ceases on his death, with the allowance of a fixed sum for funeral expenses. His other possessions he leaves as he pleases."

"What is to prevent, in course of time, such accumulations of valuable goods and chattels in the hands of individuals as might seriously interfere with equality in the circumstances of citizens?" I asked.

"That matter arranges itself very simply," was the reply. "Under the present organization of society, accumulations of personal property are merely

burdensome the moment they exceed what adds to the real comfort. In your day, if a man had a house crammed full with gold and silver plate, rare china, expensive furniture, and such things, he was considered rich, for these things represented money, and could at any time be turned into it. Nowadays a man whom the legacies of a hundred relatives, simultaneously dying, should place in a similar position, would be considered very unlucky. The articles, not being salable, would be of no value to him except for their actual use or the enjoyment of their beauty. On the other hand, his income remaining the same, he would have to deplete his credit to hire houses to store the goods in, and still further to pay for the service of those who took care of them. You may be very sure that such a man would lose no time in scattering among his friends possessions which only made him the poorer, and that none of those friends would accept more of them than they could easily spare room for and time to attend to. You see, then, that to prohibit the inheritance of personal property with a view to prevent great accumulations would be a superfluous precaution for the nation. The individual citizen can be trusted to see that he is not overburdened. So careful is he in this respect, that the relatives usually waive claim to most of the effects of deceased friends, reserving only particular objects. The nation takes charge of the resigned chattels, and turns such as are of value into the common stock once more."

"You spoke of paying for service to take care of your houses," said I; "that suggests a question I have several times been on the point of asking. How have you disposed of the problem of domestic service? Who are willing to be domestic servants in a community where all are social equals? Our ladies found it hard enough to find such even when there was little pretense of social equality."

"It is precisely because we are all social equals whose equality nothing can compromise, and because service is honorable, in a society whose fundamental principle is that all in turn shall serve the rest, that we could easily provide a corps of domestic servants such as you never dreamed of, if we needed them," replied Dr. Leete. "But we do not need them."

"Who does your house-work, then?" I asked.

"There is none to do," said Mrs. Leete, to whom I had addressed this question. "Our washing is all done at public laundries at excessively cheap

rates, and our cooking at public kitchens. The making and repairing of all we wear are done outside in public shops. Electricity, of course, takes the place of all fires and lighting. We choose houses no larger than we need, and furnish them so as to involve the minimum of trouble to keep them in order. We have no use for domestic servants."

"The fact," said Dr. Leete, "that you had in the poorer classes a boundless supply of serfs on whom you could impose all sorts of painful and disagreeable tasks, made you indifferent to devices to avoid the necessity for them. But now that we all have to do in turn whatever work is done for society, every individual in the nation has the same interest, and a personal one, in devices for lightening the burden. This fact has given a prodigious impulse to labor-saving inventions in all sorts of industry, of which the combination of the maximum of comfort and minimum of trouble in household arrangements was one of the earliest results.

"In case of special emergencies in the household," pursued Dr. Leete, "such as extensive cleaning or renovation, or sickness in the family, we can always secure assistance from the industrial force."

"But how do you recompense these assistants, since you have no money?"

"We do not pay them, of course, but the nation for them. Their services can be obtained by application at the proper bureau, and their value is pricked off the credit card of the applicant."

"What a paradise for womankind the world must be now!" I exclaimed. "In my day, even wealth and unlimited servants did not enfranchise their possessors from household cares, while the women of the merely well-to-do and poorer classes lived and died martyrs to them."

"Yes," said Mrs. Leete, "I have read something of that; enough to convince me that, badly off as the men, too, were in your day, they were more fortunate than their mothers and wives."

"The broad shoulders of the nation," said Dr. Leete, "bear now like a feather the burden that broke the backs of the women of your day. Their misery came, with all your other miseries, from that incapacity for cooperation which followed from the individualism on which your social system was founded, from your inability to perceive that you could make ten times more profit out of your fellow men by uniting with them than by contending with them. The wonder is, not that you did not live more comfortably, but that you were able to live

together at all, who were all confessedly bent on making one another your servants, and securing possession of one another's goods.

"There, there, father, if you are so vehement, Mr. West will think you are scolding him," laughingly interposed Edith.

"When you want a doctor," I asked, "do you simply apply to the proper bureau and take any one that may be sent?"

"That rule would not work well in the case of physicians," replied Dr. Leete. "The good a physician can do a patient depends largely on his acquaintance with his constitutional tendencies and condition. The patient must be able, therefore, to call in a particular doctor, and he does so just as patients did in your day. The only difference is that, instead of collecting his fee for himself, the doctor collects it for the nation by pricking off the amount, according to a regular scale for medical attendance, from the patient's credit card."

"I can imagine," I said, "that if the fee is always the same, and a doctor may not turn away patients, as I suppose he may not, the good doctors are called constantly and the poor doctors left in idleness."

"In the first place, if you will overlook the apparent conceit of the remark from a retired physician," replied Dr. Leete, with a smile, "we have no poor doctors. Anybody who pleases to get a little smattering of medical terms is not now at liberty to practice on the bodies of citizens, as in your day. None but students who have passed the severe tests of the schools, and clearly proved their vocation, are permitted to practice. Then, too, you will observe that there is nowadays no attempt of doctors to build up their practice at the expense of other doctors. There would be no motive for that. For the rest, the doctor has to render regular reports of his work to the medical bureau, and if he is not reasonably well employed, work is found for him."

CHAPTER 12

The questions which I needed to ask before I could acquire even an outline acquaintance with the institutions of the twentieth century being endless, and Dr. Leete's good-nature appearing equally so, we sat up talking for several hours after the ladies left us. Reminding my host of the point at which our talk had broken off that morning, I expressed my curiosity to learn how the organization of the industrial army was made to afford a sufficient stimulus to diligence in the lack of any anxiety on the worker's part as to his livelihood.

"You must understand in the first place," replied the doctor, "that the supply of incentives to effort is but one of the objects sought in the organization we have adopted for the army. The other, and equally important, is to secure for the file-leaders and captains of the force, and the great officers of the nation, men of proven abilities, who are pledged by their own careers to hold their followers up to their highest standard of performance and permit no lagging. With a view to these two ends the industrial army is organized. First comes the unclassified grade of common laborers, men of all work, to which all recruits during their first three years belong. This grade is a sort of school, and a very strict one, in which the young men are taught habits of obedience, subordination, and devotion to duty. While the miscellaneous nature of the work done by this force prevents the systematic grading of the workers which is afterwards possible, yet individual records are kept, and excellence receives distinction corresponding with the penalties that negligence incurs. It is not, however, policy with us to permit youthful recklessness or indiscretion, when not deeply culpable, to handicap the future careers of young men, and all who have passed through the unclassified grade without serious disgrace have an equal opportunity to choose the life employment they have most liking for. Having selected this, they enter upon it as apprentices. The length of the apprenticeship naturally differs in different occupations. At the end of it the apprentice becomes a full workman, and a member of his trade or guild. Now not only are the individual records of the apprentices for ability and industry strictly kept, and excellence distinguished by suitable distinctions, but upon the average of his record during apprenticeship the standing given the apprentice among the full workmen depends.

"While the internal organizations of different industries, mechanical and agricultural, differ according to their peculiar conditions, they agree in a general division of their workers into first, second, and third grades, according to ability, and these grades are in many cases subdivided into first and second classes. According to his standing as an apprentice a young man is assigned his place as a first, second, or third grade worker. Of course only men of unusual ability pass directly from apprenticeship into the first grade of the workers. The most fall into the lower grades, working up as they grow more experienced, at the periodical regradings. These regradings take place in each industry at intervals corresponding with the length of the apprenticeship to that industry, so that merit never need wait long to rise, nor can any rest on past achievements unless they would drop into a lower rank. One of the notable advantages of a high grading is the privilege it gives the worker in electing which of the various branches or processes of his industry he will follow as his specialty. Of course it is not intended that any of these processes shall be disproportionately arduous, but there is often much difference between them, and the privilege of election is accordingly highly prized. So far as possible, indeed, the preferences even of the poorest workmen are considered in assigning them their line of work, because not only their happiness but their usefulness is thus enhanced. While, however, the wish of the lower grade man is consulted so far as the exigencies of the service permit, he is considered only after the upper grade men have been provided for, and often he has to put up with second or third choice, or even with an arbitrary assignment when help is needed. This privilege of election attends every regrading, and when a man loses his grade he also risks having to exchange the sort of work he likes for some other less to his taste. The results of each regrading, giving the standing of every man in his industry, are gazetted in the public prints, and those who have won promotion since the last regrading receive the nation's thanks and are publicly invested with the badge of their new rank."

"What may this badge be?" I asked.

"Every industry has its emblematic device," replied Dr. Leete, "and this, in the shape of a metallic badge so small that you might not see it unless you knew where to look, is all the insignia which the men of the army wear, except where public convenience demands a distinctive uniform. This badge is the same in

form for all grades of industry, but while the badge of the third grade is iron, that of the second grade is silver, and that of the first is gilt.

"Apart from the grand incentive to endeavor afforded by the fact that the high places in the nation are open only to the highest class men, and that rank in the army constitutes the only mode of social distinction for the vast majority who are not aspirants in art, literature, and the professions, various incitements of a minor, but perhaps equally effective, sort are provided in the form of special privileges and immunities in the way of discipline, which the superior class men enjoy. These, while intended to be as little as possible invidious to the less successful, have the effect of keeping constantly before every man's mind the great desirability of attaining the grade next above his own.

"It is obviously important that not only the good but also the indifferent and poor workmen should be able to cherish the ambition of rising. Indeed, the number of the latter being so much greater, it is even more essential that the ranking system should not operate to discourage them than that it should stimulate the others. It is to this end that the grades are divided into classes. The grades as well as the classes being made numerically equal at each regrading, there is not at any time, counting out the officers and the unclassified and apprentice grades, over one-ninth of the industrial army in the lowest class, and most of this number are recent apprentices, all of whom expect to rise. Those who remain during the entire term of service in the lowest class are but a trifling fraction of the industrial army, and likely to be as deficient in sensibility to their position as in ability to better it.

"It is not even necessary that a worker should win promotion to a higher grade to have at least a taste of glory. While promotion requires a general excellence of record as a worker, honorable mention and various sorts of prizes are awarded for excellence less than sufficient for promotion, and also for special feats and single performances in the various industries. There are many minor distinctions of standing, not only within the grades but within the classes, each of which acts as a spur to the efforts of a group. It is intended that no form of merit shall wholly fail of recognition.

"As for actual neglect of work positively bad work, or other overt remissness on the part of men incapable of generous motives, the discipline of the industrial army is far too strict to allow anything whatever of the sort. A man

able to do duty, and persistently refusing, is sentenced to solitary imprisonment on bread and water till he consents.

"The lowest grade of the officers of the industrial army, that of assistant foremen or lieutenants, is appointed out of men who have held their place for two years in the first class of the first grade. Where this leaves too large a range of choice, only the first group of this class are eligible. No one thus comes to the point of commanding men until he is about thirty years old. After a man becomes an officer, his rating of course no longer depends on the efficiency of his own work, but on that of his men. The foremen are appointed from among the assistant foremen, by the same exercise of discretion limited to a small eligible class. In the appointments to the still higher grades another principle is introduced, which it would take too much time to explain now.

"Of course such a system of grading as I have described would have been impracticable applied to the small industrial concerns of your day, in some of which there were hardly enough employees to have left one apiece for the classes. You must remember that, under the national organization of labor, all industries are carried on by great bodies of men, many of your farms or shops being combined as one. It is also owing solely to the vast scale on which each industry is organized, with co-ordinate establishments in every part of the country, that we are able by exchanges and transfers to fit every man so nearly with the sort of work he can do best.

"And now, Mr. West, I will leave it to you, on the bare outline of its features which I have given, if those who need special incentives to do their best are likely to lack them under our system. Does it not seem to you that men who found themselves obliged, whether they wished or not, to work, would under such a system be strongly impelled to do their best?"

I replied that it seemed to me the incentives offered were, if any objection were to be made, too strong; that the pace set for the young men was too hot; and such, indeed, I would add with deference, still remains my opinion, now that by longer residence among you I become better acquainted with the whole subject.

Dr. Leete, however, desired me to reflect, and I am ready to say that it is perhaps a sufficient reply to my objection, that the worker's livelihood is in no way dependent on his ranking, and anxiety for that never embitters his

disappointments; that the working hours are short, the vacations regular, and that all emulation ceases at forty-five, with the attainment of middle life.

"There are two or three other points I ought to refer to," he added, "to prevent your getting mistaken impressions. In the first place, you must understand that this system of preferment given the more efficient workers over the less so, in no way contravenes the fundamental idea of our social system, that all who do their best are equally deserving, whether that best be great or small. I have shown that the system is arranged to encourage the weaker as well as the stronger with the hope of rising, while the fact that the stronger are selected for the leaders is in no way a reflection upon the weaker, but in the interest of the common weal.

"Do not imagine, either, because emulation is given free play as an incentive under our system, that we deem it a motive likely to appeal to the nobler sort of men, or worthy of them. Such as these find their motives within, not without, and measure their duty by their own endowments, not by those of others. So long as their achievement is proportioned to their powers, they would consider it preposterous to expect praise or blame because it chanced to be great or small. To such natures emulation appears philosophically absurd, and despicable in a moral aspect by its substitution of envy for admiration, and exultation for regret, in one's attitude toward the successes and the failures of others.

"But all men, even in the last year of the twentieth century, are not of this high order, and the incentives to endeavor requisite for those who are not must be of a sort adapted to their inferior natures. For these, then, emulation of the keenest edge is provided as a constant spur. Those who need this motive will feel it. Those who are above its influence do not need it.

"I should not fail to mention," resumed the doctor, "that for those too deficient in mental or bodily strength to be fairly graded with the main body of workers, we have a separate grade, unconnected with the others,—a sort of invalid corps, the members of which are provided with a light class of tasks fitted to their strength. All our sick in mind and body, all our deaf and dumb, and lame and blind and crippled, and even our insane, belong to this invalid corps, and bear its insignia. The strongest often do nearly a man's work, the feeblest, of course, nothing; but none who can do anything are willing quite to

give up. In their lucid intervals, even our insane are eager to do what they can."

"That is a pretty idea of the invalid corps," I said. "Even a barbarian from the nineteenth century can appreciate that. It is a very graceful way of disguising charity, and must be grateful to the feelings of its recipients."

"Charity!" repeated Dr. Leete. "Did you suppose that we consider the incapable class we are talking of objects of charity?"

"Why, naturally," I said, "inasmuch as they are incapable of self-support."

But here the doctor took me up quickly.

"Who is capable of self-support?" he demanded. "There is no such thing in a civilized society as self-support. In a state of society so barbarous as not even to know family cooperation, each individual may possibly support himself, though even then for a part of his life only; but from the moment that men begin to live together, and constitute even the rudest sort of society, self-support becomes impossible. As men grow more civilized, and the subdivision of occupations and services is carried out, a complex mutual dependence becomes the universal rule. Every man, however solitary may seem his occupation, is a member of a vast industrial partnership, as large as the nation, as large as humanity. The necessity of mutual dependence should imply the duty and guarantee of mutual support; and that it did not in your day constituted the essential cruelty and unreason of your system."

"That may all be so," I replied, "but it does not touch the case of those who are unable to contribute anything to the product of industry."

"Surely I told you this morning, at least I thought I did," replied Dr. Leete, "that the right of a man to maintenance at the nation's table depends on the fact that he is a man, and not on the amount of health and strength he may have, so long as he does his best."

"You said so," I answered, "but I supposed the rule applied only to the workers of different ability. Does it also hold of those who can do nothing at all?"

"Are they not also men?"

"I am to understand, then, that the lame, the blind, the sick, and the impotent, are as well off as the most efficient and have the same income?"

"Certainly," was the reply.

"The idea of charity on such a scale," I answered, "would have made our

most enthusiastic philanthropists gasp."

"If you had a sick brother at home," replied Dr. Leete, "unable to work, would you feed him on less dainty food, and lodge and clothe him more poorly, than yourself? More likely far, you would give him the preference; nor would you think of calling it charity. Would not the word, in that connection, fill you with indignation?"

"Of course," I replied; "but the cases are not parallel. There is a sense, no doubt, in which all men are brothers; but this general sort of brotherhood is not to be compared, except for rhetorical purposes, to the brotherhood of blood, either as to its sentiment or its obligations."

"There speaks the nineteenth century!" exclaimed Dr. Leete. "Ah, Mr. West, there is no doubt as to the length of time that you slept. If I were to give you, in one sentence, a key to what may seem the mysteries of our civilization as compared with that of your age, I should say that it is the fact that the solidarity of the race and the brotherhood of man, which to you were but fine phrases, are, to our thinking and feeling, ties as real and as vital as physical fraternity.

"But even setting that consideration aside, I do not see why it so surprises you that those who cannot work are conceded the full right to live on the produce of those who can. Even in your day, the duty of military service for the protection of the nation, to which our industrial service corresponds, while obligatory on those able to discharge it, did not operate to deprive of the privileges of citizenship those who were unable. They stayed at home, and were protected by those who fought, and nobody questioned their right to be, or thought less of them. So, now, the requirement of industrial service from those able to render it does not operate to deprive of the privileges of citizenship, which now implies the citizen's maintenance, him who cannot work. The worker is not a citizen because he works, but works because he is a citizen. As you recognize the duty of the strong to fight for the weak, we, now that fighting is gone by, recognize his duty to work for him.

"A solution which leaves an unaccounted-for residuum is no solution at all; and our solution of the problem of human society would have been none at all had it left the lame, the sick, and the blind outside with the beasts, to fare as they might. Better far have left the strong and well unprovided for than these burdened ones, toward whom every heart must yearn, and for whom ease of

mind and body should be provided, if for no others. Therefore it is, as I told you this morning, that the title of every man, woman, and child to the means of existence rests on no basis less plain, broad, and simple than the fact that they are fellows of one race-members of one human family. The only coin current is the image of God, and that is good for all we have.

"I think there is no feature of the civilization of your epoch so repugnant to modern ideas as the neglect with which you treated your dependent classes. Even if you had no pity, no feeling of brotherhood, how was it that you did not see that you were robbing the incapable class of their plain right in leaving them unprovided for?"

"I don't quite follow you there," I said. "I admit the claim of this class to our pity, but how could they who produced nothing claim a share of the product as a right?"

"How happened it," was Dr. Leete's reply, "that your workers were able to produce more than so many savages would have done? Was it not wholly on account of the heritage of the past knowledge and achievements of the race, the machinery of society, thousands of years in contriving, found by you ready-made to your hand? How did you come to be possessors of this knowledge and this machinery, which represent nine parts to one contributed by yourself in the value of your product? You inherited it, did you not? And were not these others, these unfortunate and crippled brothers whom you cast out, joint inheritors, co-heirs with you? What did you do with their share? Did you not rob them when you put them off with crusts, who were entitled to sit with the heirs, and did you not add insult to robbery when you called the crusts charity?

"Ah, Mr. West," Dr. Leete continued, as I did not respond, "what I do not understand is, setting aside all considerations either of justice or brotherly feeling toward the crippled and defective, how the workers of your day could have had any heart for their work, knowing that their children, or grandchildren, if unfortunate, would be deprived of the comforts and even necessities of life. It is a mystery how men with children could favor a system under which they were rewarded beyond those less endowed with bodily strength or mental power. For, by the same discrimination by which the father profited, the son, for whom he would give his life, being perchance weaker than others, might be reduced to crusts and beggary. How men dared leave children behind them, I

have never been able to understand."

Note.—Although in his talk on the previous evening Dr. Leete had emphasized the pains taken to enable every man to ascertain and follow his natural bent in choosing an occupation, it was not till I learned that the worker's income is the same in all occupations that I realized how absolutely he may be counted on to do so, and thus, by selecting the harness which sets most lightly on himself, find that in which he can pull best. The failure of my age in any systematic or effective way to develop and utilize the natural aptitudes of men for the industries and intellectual avocations was one of the great wastes, as well as one of the most common causes of unhappiness in that time. The vast majority of my contemporaries, though nominally free to do so, never really chose their occupations at all, but were forced by circumstances into work for which they were relatively inefficient, because not naturally fitted for it. The rich, in this respect, had little advantage over the poor. The latter, indeed, being generally deprived of education, had no opportunity even to ascertain the natural aptitudes they might have, and on account of their poverty were unable to develop them by cultivation even when ascertained. The liberal and technical professions, except by favorable accident, were shut to them, to their own great loss and that of the nation. On the other hand, the well-to-do, although they could command education and opportunity, were scarcely less hampered by social prejudice, which forbade them to pursue manual avocations, even when adapted to them, and destined them, whether fit or unfit, to the professions, thus wasting many an excellent handicraftsman. Mercenary considerations, tempting men to pursue money-making occupations for which they were unfit, instead of less remunerative employments for which they were fit, were responsible for another vast perversion of talent. All these things now are changed. Equal education and opportunity must needs bring to light whatever aptitudes a man has, and neither social prejudices nor mercenary considerations hamper him in the choice of his life work.

CHAPTER 13

As Edith had promised he should do, Dr. Leete accompanied me to my bedroom when I retired, to instruct me as to the adjustment of the musical telephone. He showed how, by turning a screw, the volume of the music could be made to fill the room, or die away to an echo so faint and far that one could scarcely be sure whether he heard or imagined it. If, of two persons side by side, one desired to listen to music and the other to sleep, it could be made audible to one and inaudible to another.

"I should strongly advise you to sleep if you can to-night, Mr. West, in preference to listening to the finest tunes in the world," the doctor said, after explaining these points. "In the trying experience you are just now passing through, sleep is a nerve tonic for which there is no substitute."

Mindful of what had happened to me that very morning, I promised to heed his counsel.

"Very well," he said, "then I will set the telephone at eight o'clock."

"What do you mean?" I asked.

He explained that, by a clock-work combination, a person could arrange to be awakened at any hour by the music.

It began to appear, as has since fully proved to be the case, that I had left my tendency to insomnia behind me with the other discomforts of existence in the nineteenth century; for though I took no sleeping draught this time, yet, as the night before, I had no sooner touched the pillow than I was asleep.

I dreamed that I sat on the throne of the Abencerrages in the banqueting hall of the Alhambra, feasting my lords and generals, who next day were to follow the crescent against the Christian dogs of Spain. The air, cooled by the spray of fountains, was heavy with the scent of flowers. A band of Nautch girls, round-limbed and luscious-lipped, danced with voluptuous grace to the music of brazen and stringed instruments. Looking up to the latticed galleries, one caught a gleam now and then from the eye of some beauty of the royal harem, looking down upon the assembled flower of Moorish chivalry. Louder and louder clashed the cymbals, wilder and wilder grew the strain, till the blood of the desert race could no longer resist the martial delirium, and the swart nobles leaped to their feet; a thousand scimetars were bared, and the cry, "Allah il

Allah!" shook the hall and awoke me, to find it broad daylight, and the room tingling with the electric music of the "Turkish Reveille."

At the breakfast-table, when I told my host of my morning's experience, I learned that it was not a mere chance that the piece of music which awakened me was a reveille. The airs played at one of the halls during the waking hours of the morning were always of an inspiring type.

"By the way," I said, "I have not thought to ask you anything about the state of Europe. Have the societies of the Old World also been remodeled?"

"Yes," replied Dr. Leete, "the great nations of Europe as well as Australia, Mexico, and parts of South America, are now organized industrially like the United States, which was the pioneer of the evolution. The peaceful relations of these nations are assured by a loose form of federal union of world-wide extent. An international council regulates the mutual intercourse and commerce of the members of the union and their joint policy toward the more backward races, which are gradually being educated up to civilized institutions. Complete autonomy within its own limits is enjoyed by every nation."

"How do you carry on commerce without money?" I said. "In trading with other nations, you must use some sort of money, although you dispense with it in the internal affairs of the nation."

"Oh, no; money is as superfluous in our foreign as in our internal relations. When foreign commerce was conducted by private enterprise, money was necessary to adjust it on account of the multifarious complexity of the transactions; but nowadays it is a function of the nations as units. There are thus only a dozen or so merchants in the world, and their business being supervised by the international council, a simple system of book accounts serves perfectly to regulate their dealings. Customs duties of every sort are of course superfluous. A nation simply does not import what its government does not think requisite for the general interest. Each nation has a bureau of foreign exchange, which manages its trading. For example, the American bureau, estimating such and such quantities of French goods necessary to America for a given year, sends the order to the French bureau, which in turn sends its order to our bureau. The same is done mutually by all the nations."

"But how are the prices of foreign goods settled, since there is no competition?"

"The price at which one nation supplies another with goods," replied Dr. Leete, "must be that at which it supplies its own citizens. So you see there is no danger of misunderstanding. Of course no nation is theoretically bound to supply another with the product of its own labor, but it is for the interest of all to exchange some commodities. If a nation is regularly supplying another with certain goods, notice is required from either side of any important change in the relation."

"But what if a nation, having a monopoly of some natural product, should refuse to supply it to the others, or to one of them?"

"Such a case has never occurred, and could not without doing the refusing party vastly more harm than the others," replied Dr. Leete. "In the fist place, no favoritism could be legally shown. The law requires that each nation shall deal with the others, in all respects, on exactly the same footing. Such a course as you suggest would cut off the nation adopting it from the remainder of the earth for all purposes whatever. The contingency is one that need not give us much anxiety."

"But," said I, "supposing a nation, having a natural monopoly in some product of which it exports more than it consumes, should put the price away up, and thus, without cutting off the supply, make a profit out of its neighbors' necessities? Its own citizens would of course have to pay the higher price on that commodity, but as a body would make more out of foreigners than they would be out of pocket themselves."

"When you come to know how prices of all commodities are determined nowadays, you will perceive how impossible it is that they could be altered, except with reference to the amount or arduousness of the work required respectively to produce them," was Dr. Leete's reply. "This principle is an international as well as a national guarantee; but even without it the sense of community of interest, international as well as national, and the conviction of the folly of selfishness, are too deep nowadays to render possible such a piece of sharp practice as you apprehend. You must understand that we all look forward to an eventual unification of the world as one nation. That, no doubt, will be the ultimate form of society, and will realize certain economic advantages over the present federal system of autonomous nations. Meanwhile, however, the present system works so nearly perfectly that we are quite content to leave to posterity

the completion of the scheme. There are, indeed, some who hold that it never will be completed, on the ground that the federal plan is not merely a provisional solution of the problem of human society, but the best ultimate solution."

"How do you manage," I asked, "when the books of any two nations do not balance? Supposing we import more from France than we export to her."

"At the end of each year," replied the doctor, "the books of every nation are examined. If France is found in our debt, probably we are in the debt of some nation which owes France, and so on with all the nations. The balances that remain after the accounts have been cleared by the international council should not be large under our system. Whatever they may be, the council requires them to be settled every few years, and may require their settlement at any time if they are getting too large; for it is not intended that any nation shall run largely in debt to another, lest feelings unfavorable to amity should be engendered. To guard further against this, the international council inspects the commodities interchanged by the nations, to see that they are of perfect quality."

"But what are the balances finally settled with, seeing that you have no money?"

"In national staples; a basis of agreement as to what staples shall be accepted, and in what proportions, for settlement of accounts, being a preliminary to trade relations."

"Emigration is another point I want to ask you about," said I. "With every nation organized as a close industrial partnership, monopolizing all means of production in the country, the emigrant, even if he were permitted to land, would starve. I suppose there is no emigration nowadays."

"On the contrary, there is constant emigration, by which I suppose you mean removal to foreign countries for permanent residence," replied Dr. Leete. "It is arranged on a simple international arrangement of indemnities. For example, if a man at twenty-one emigrates from England to America, England loses all the expense of his maintenance and education, and America gets a workman for nothing. America accordingly makes England an allowance. The same principle, varied to suit the case, applies generally. If the man is near the term of his labor when he emigrates, the country receiving him has the allowance. As to imbecile persons, it is deemed best that each nation should be

responsible for its own, and the emigration of such must be under full guarantees of support by his own nation. Subject to these regulations, the right of any man to emigrate at any time is unrestricted."

"But how about mere pleasure trips; tours of observation? How can a stranger travel in a country whose people do not receive money, and are themselves supplied with the means of life on a basis not extended to him? His own credit card cannot, of course, be good in other lands. How does he pay his way?"

"An American credit card," replied Dr. Leete, "is just as good in Europe as American gold used to be, and on precisely the same condition, namely, that it be exchanged into the currency of the country you are traveling in. An American in Berlin takes his credit card to the local office of the international council, and receives in exchange for the whole or part of it a German credit card, the amount being charged against the United States in favor of Germany on the international account."

"Perhaps Mr. West would like to dine at the Elephant to-day," said Edith, as we left the table.

"That is the name we give to the general dining-house in our ward," explained her father. "Not only is our cooking done at the public kitchens, as I told you last night, but the service and quality of the meals are much more satisfactory if taken at the dining-house. The two minor meals of the day are usually taken at home, as not worth the trouble of going out; but it is general to go out to dine. We have not done so since you have been with us, from a notion that it would be better to wait till you had become a little more familiar with our ways. What do you think? Shall we take dinner at the dining-house to-day?"

I said that I should be very much pleased to do so.

Not long after, Edith came to me, smiling, and said:

"Last night, as I was thinking what I could do to make you feel at home until you came to be a little more used to us and our ways, an idea occurred to me. What would you say if I were to introduce you to some very nice people of your own times, whom I am sure you used to be well acquainted with?"

I replied, rather vaguely, that it would certainly be very agreeable, but I did not see how she was going to manage it.

"Come with me," was her smiling reply, "and see if I am not as good as my

word."

My susceptibility to surprise had been pretty well exhausted by the numerous shocks it had received, but it was with some wonderment that I followed her into a room which I had not before entered. It was a small, cosy apartment, walled with cases filled with books.

"Here are your friends," said Edith, indicating one of the cases, and as my eye glanced over the names on the backs of the volumes, Shakespeare, Milton, Wordsworth, Shelley, Tennyson, Defoe, Dickens, Thackeray, Hugo, Hawthorne, Irving, and a score of other great writers of my time and all time, I understood her meaning. She had indeed made good her promise in a sense compared with which its literal fulfillment would have been a disappointment. She had introduced me to a circle of friends whom the century that had elapsed since last I communed with them had aged as little as it had myself. Their spirit was as high, their wit as keen, their laughter and their tears as contagious, as when their speech had whiled away the hours of a former century. Lonely I was not and could not be more, with this goodly companionship, however wide the gulf of years that gaped between me and my old life.

"You are glad I brought you here," exclaimed Edith, radiant, as she read in my face the success of her experiment. "It was a good idea, was it not, Mr. West? How stupid in me not to think of it before! I will leave you now with your old friends, for I know there will be no company for you like them just now; but remember you must not let old friends make you quite forget new ones!" and with that smiling caution she left me.

Attracted by the most familiar of the names before me, I laid my hand on a volume of Dickens, and sat down to read. He had been my prime favorite among the bookwriters of the century,—I mean the nineteenth century,—and a week had rarely passed in my old life during which I had not taken up some volume of his works to while away an idle hour. Any volume with which I had been familiar would have produced an extraordinary impression, read under my present circumstances, but my exceptional familiarity with Dickens, and his consequent power to call up the associations of my former life, gave to his writings an effect no others could have had, to intensify, by force of contrast, my appreciation of the strangeness of my present environment. However new and astonishing one's surroundings, the tendency is to become a part of them so

soon that almost from the first the power to see them objectively and fully measure their strangeness, is lost. That power, already dulled in my case, the pages of Dickens restored by carrying me back through their associations to the standpoint of my former life.

With a clearness which I had not been able before to attain, I saw now the past and present, like contrasting pictures, side by side.

The genius of the great novelist of the nineteenth century, like that of Homer, might indeed defy time; but the setting of his pathetic tales, the misery of the poor, the wrongs of power, the pitiless cruelty of the system of society, had passed away as utterly as Circe and the sirens, Charybdis and Cyclops.

During the hour or two that I sat there with Dickens open before me, I did not actually read more than a couple of pages. Every paragraph, every phrase, brought up some new aspect of the world-transformation which had taken place, and led my thoughts on long and widely ramifying excursions. As meditating thus in Dr. Leete's library I gradually attained a more clear and coherent idea of the prodigious spectacle which I had been so strangely enabled to view, I was filled with a deepening wonder at the seeming capriciousness of the fate that had given to one who so little deserved it, or seemed in any way set apart for it, the power alone among his contemporaries to stand upon the earth in this latter day. I had neither foreseen the new world nor toiled for it, as many about me had done regardless of the scorn of fools or the misconstruction of the good. Surely it would have been more in accordance with the fitness of things had one of those prophetic and strenuous souls been enabled to see the travail of his soul and be satisfied; he, for example, a thousand times rather than I, who, having beheld in a vision the world I looked on, sang of it in words that again and again, during these last wondrous days, had rung in my mind:

For I dipt into the future, far as human eye could see,
Saw the vision of the world, and all the wonder that would be
Till the war-drum throbbed no longer, and the battle-flags were furled.
In the Parliament of man, the federation of the world.
Then the common sense of most shall hold a fretful realm in awe,
And the kindly earth shall slumber, lapt in universal law.
For I doubt not through the ages one increasing purpose runs,
And the thoughts of men are widened with the process of the suns.

What though, in his old age, he momentarily lost faith in his own prediction, as prophets in their hours of depression and doubt generally do; the words had remained eternal testimony to the seership of a poet's heart, the insight that is given to faith.

I was still in the library when some hours later Dr. Leete sought me there. "Edith told me of her idea," he said, "and I thought it an excellent one. I had a little curiosity what writer you would first turn to. Ah, Dickens! You admired him, then! That is where we moderns agree with you. Judged by our standards, he overtops all the writers of his age, not because his literary genius was highest, but because his great heart beat for the poor, because he made the cause of the victims of society his own, and devoted his pen to exposing its cruelties and shams. No man of his time did so much as he to turn men's minds to the wrong and wretchedness of the old order of things, and open their eyes to the necessity of the great change that was coming, although he himself did not clearly foresee it."

CHAPTER 14

A heavy rainstorm came up during the day, and I had concluded that the condition of the streets would be such that my hosts would have to give up the idea of going out to dinner, although the dining-hall I had understood to be quite near. I was much surprised when at the dinner hour the ladies appeared prepared to go out, but without either rubbers or umbrellas.

The mystery was explained when we found ourselves on the street, for a continuous waterproof covering had been let down so as to inclose the sidewalk and turn it into a well lighted and perfectly dry corridor, which was filled with a stream of ladies and gentlemen dressed for dinner. At the comers the entire open space was similarly roofed in. Edith Leete, with whom I walked, seemed much interested in learning what appeared to be entirely new to her, that in the stormy weather the streets of the Boston of my day had been impassable, except to persons protected by umbrellas, boots, and heavy clothing. "Were sidewalk coverings not used at all?" she asked. They were used, I explained, but in a scattered and utterly unsystematic way, being private enterprises. She said to me that at the present time all the streets were provided against inclement weather in the manner I saw, the apparatus being rolled out of the way when it was unnecessary. She intimated that it would be considered an extraordinary imbecility to permit the weather to have any effect on the social movements of the people.

Dr. Leete, who was walking ahead, overhearing something of our talk, turned to say that the difference between the age of individualism and that of concert was well characterized by the fact that, in the nineteenth century, when it rained, the people of Boston put up three hundred thousand umbrellas over as many heads, and in the twentieth century they put up one umbrella over all the heads.

As we walked on, Edith said, "The private umbrella is father's favorite figure to illustrate the old way when everybody lived for himself and his family. There is a nineteenth century painting at the Art Gallery representing a crowd of people in the rain, each one holding his umbrella over himself and his wife, and giving his neighbors the drippings, which he claims must have been meant by the artist as a satire on his times."

We now entered a large building into which a stream of people was pouring. I could not see the front, owing to the awning, but, if in correspondence with the interior, which was even finer than the store I visited the day before, it would have been magnificent. My companion said that the sculptured group over the entrance was especially admired. Going up a grand staircase we walked some distance along a broad corridor with many doors opening upon it. At one of these, which bore my host's name, we turned in, and I found myself in an elegant dining-room containing a table for four. Windows opened on a courtyard where a fountain played to a great height and music made the air electric.

"You seem at home here," I said, as we seated ourselves at table, and Dr. Leete touched an annunciator.

"This is, in fact, a part of our house, slightly detached from the rest," he replied. "Every family in the ward has a room set apart in this great building for its permanent and exclusive use for a small annual rental. For transient guests and individuals there is accommodation on another floor. If we expect to dine here, we put in our orders the night before, selecting anything in market, according to the daily reports in the papers. The meal is as expensive or as simple as we please, though of course everything is vastly cheaper as well as better than it would be prepared at home. There is actually nothing which our people take more interest in than the perfection of the catering and cooking done for them, and I admit that we are a little vain of the success that has been attained by this branch of the service. Ah, my dear Mr. West, though other aspects of your civilization were more tragical, I can imagine that none could have been more depressing than the poor dinners you had to eat, that is, all of you who had not great wealth."

"You would have found none of us disposed to disagree with you on that point," I said.

The waiter, a fine-looking young fellow, wearing a slightly distinctive uniform, now made his appearance. I observed him closely, as it was the first time I had been able to study particularly the bearing of one of the enlisted members of the industrial army. This young man, I knew from what I had been told, must be highly educated, and the equal, socially and in all respects, of those he served. But it was perfectly evident that to neither side was the situation in the slightest degree embarrassing. Dr. Leete addressed the young

man in a tone devoid, of course, as any gentleman's would be, of superciliousness, but at the same time not in any way deprecatory, while the manner of the young man was simply that of a person intent on discharging correctly the task he was engaged in, equally without familiarity or obsequiousness. It was, in fact, the manner of a soldier on duty, but without the military stiffness. As the youth left the room, I said, "I cannot get over my wonder at seeing a young man like that serving so contentedly in a menial position."

"What is that word 'menial'? I never heard it," said Edith.

"It is obsolete now," remarked her father. "If I understand it rightly, it applied to persons who performed particularly disagreeable and unpleasant tasks for others, and carried with it an implication of contempt. Was it not so, Mr. West?"

"That is about it," I said. "Personal service, such as waiting on tables, was considered menial, and held in such contempt, in my day, that persons of culture and refinement would suffer hardship before condescending to it."

"What a strangely artificial idea," exclaimed Mrs. Leete wonderingly.

"And yet these services had to be rendered," said Edith.

"Of course," I replied. "But we imposed them on the poor, and those who had no alternative but starvation."

"And increased the burden you imposed on them by adding your contempt," remarked Dr. Leete.

"I don't think I clearly understand," said Edith. "Do you mean that you permitted people to do things for you which you despised them for doing, or that you accepted services from them which you would have been unwilling to render them? You can't surely mean that, Mr. West?"

I was obliged to tell her that the fact was just as she had stated. Dr. Leete, however, came to my relief.

"To understand why Edith is surprised," he said, "you must know that nowadays it is an axiom of ethics that to accept a service from another which we would be unwilling to return in kind, if need were, is like borrowing with the intention of not repaying, while to enforce such a service by taking advantage of the poverty or necessity of a person would be an outrage like forcible robbery. It is the worst thing about any system which divides men, or allows them to be

divided, into classes and castes, that it weakens the sense of a common humanity. Unequal distribution of wealth, and, still more effectually, unequal opportunities of education and culture, divided society in your day into classes which in many respects regarded each other as distinct races. There is not, after all, such a difference as might appear between our ways of looking at this question of service. Ladies and gentlemen of the cultured class in your day would no more have permitted persons of their own class to render them services they would scorn to return than we would permit anybody to do so. The poor and the uncultured, however, they looked upon as of another kind from themselves. The equal wealth and equal opportunities of culture which all persons now enjoy have simply made us all members of one class, which corresponds to the most fortunate class with you. Until this equality of condition had come to pass, the idea of the solidarity of humanity, the brotherhood of all men, could never have become the real conviction and practical principle of action it is nowadays. In your day the same phrases were indeed used, but they were phrases merely."

"Do the waiters, also, volunteer?"

"No," replied Dr. Leete. "The waiters are young men in the unclassified grade of the industrial army who are assignable to all sorts of miscellaneous occupations not requiring special skill. Waiting on table is one of these, and every young recruit is given a taste of it. I myself served as a waiter for several months in this very dining-house some forty years ago. Once more you must remember that there is recognized no sort of difference between the dignity of the different sorts of work required by the nation. The individual is never regarded, nor regards himself, as the servant of those he serves, nor is he in any way dependent upon them. It is always the nation which he is serving. No difference is recognized between a waiter's functions and those of any other worker. The fact that his is a personal service is indifferent from our point of view. So is a doctor's. I should as soon expect our waiter today to look down on me because I served him as a doctor, as think of looking down on him because he serves me as a waiter."

After dinner my entertainers conducted me about the building, of which the extent, the magnificent architecture and richness of embellishment, astonished me. It seemed that it was not merely a dining-hall, but likewise a great

pleasure-house and social rendezvous of the quarter, and no appliance of entertainment or recreation seemed lacking.

"You find illustrated here," said Dr. Leete, when I had expressed my admiration, "what I said to you in our first conversation, when you were looking out over the city, as to the splendor of our public and common life as compared with the simplicity of our private and home life, and the contrast which, in this respect, the twentieth bears to the nineteenth century. To save ourselves useless burdens, we have as little gear about us at home as is consistent with comfort, but the social side of our life is ornate and luxurious beyond anything the world ever knew before. All the industrial and professional guilds have clubhouses as extensive as this, as well as country, mountain, and seaside houses for sport and rest in vacations."

NOTE. In the latter part of the nineteenth century it became a practice of needy young men at some of the colleges of the country to earn a little money for their term bills by serving as waiters on tables at hotels during the long summer vacation. It was claimed, in reply to critics who expressed the prejudices of the time in asserting that persons voluntarily following such an occupation could not be gentlemen, that they were entitled to praise for vindicating, by their example, the dignity of all honest and necessary labor. The use of this argument illustrates a common confusion in thought on the part of my former contemporaries. The business of waiting on tables was in no more need of defense than most of the other ways of getting a living in that day, but to talk of dignity attaching to labor of any sort under the system then prevailing was absurd. There is no way in which selling labor for the highest price it will fetch is more dignified than selling goods for what can be got. Both were commercial transactions to be judged by the commercial standard. By setting a price in money on his service, the worker accepted the money measure for it, and renounced all clear claim to be judged by any other. The sordid taint which this necessity imparted to the noblest and the highest sorts of service was bitterly resented by generous souls, but there was no evading it. There was no exemption, however transcendent the quality of one's service, from the necessity of haggling for its price in the market-place. The physician must sell his healing and the apostle his preaching like the rest. The prophet, who had guessed the meaning of God, must dicker for the price of the revelation, and the poet hawk

his visions in printers' row. If I were asked to name the most distinguishing felicity of this age, as compared to that in which I first saw the light, I should say that to me it seems to consist in the dignity you have given to labor by refusing to set a price upon it and abolishing the market-place forever. By requiring of every man his best you have made God his task-master, and by making honor the sole reward of achievement you have imparted to all service the distinction peculiar in my day to the soldier's.

CHAPTER 15

When, in the course of our tour of inspection, we came to the library, we succumbed to the temptation of the luxurious leather chairs with which it was furnished, and sat down in one of the book-lined alcoves to rest and chat awhile. [1]

"Edith tells me that you have been in the library all the morning," said Mrs. Leete. "Do you know, it seems to me, Mr. West, that you are the most enviable of mortals."

"I should like to know just why," I replied.

"Because the books of the last hundred years will be new to you," she answered. "You will have so much of the most absorbing literature to read as to leave you scarcely time for meals these five years to come. Ah, what would I give if I had not already read Berrian's novels."

"Or Nesmyth's, mamma," added Edith.

"Yes, or Oates' poems, or 'Past and Present,' or, 'In the Beginning,' or—oh, I could name a dozen books, each worth a year of one's life," declared Mrs. Leete, enthusiastically.

"I judge, then, that there has been some notable literature produced in this century."

"Yes," said Dr. Leete. "It has been an era of unexampled intellectual splendor. Probably humanity never before passed through a moral and material evolution, at once so vast in its scope and brief in its time of accomplishment, as that from the old order to the new in the early part of this century. When men came to realize the greatness of the felicity which had befallen them, and that the change through which they had passed was not merely an improvement in details of their condition, but the rise of the race to a new plane of existence with an illimitable vista of progress, their minds were affected in all their faculties with a stimulus, of which the outburst of the mediaeval renaissance offers a suggestion but faint indeed. There ensued an era of mechanical invention, scientific discovery, art, musical and literary productiveness to which no previous age of the world offers anything comparable."

"By the way," said I, "talking of literature, how are books published now? Is that also done by the nation?"

"Certainly."

"But how do you manage it? Does the government publish everything that is brought it as a matter of course, at the public expense, or does it exercise a censorship and print only what it approves?"

"Neither way. The printing department has no censorial powers. It is bound to print all that is offered it, but prints it only on condition that the author defray the first cost out of his credit. He must pay for the privilege of the public ear, and if he has any message worth hearing we consider that he will be glad to do it. Of course, if incomes were unequal, as in the old times, this rule would enable only the rich to be authors, but the resources of citizens being equal, it merely measures the strength of the author's motive. The cost of an edition of an average book can be saved out of a year's credit by the practice of economy and some sacrifices. The book, on being published, is placed on sale by the nation."

"The author receiving a royalty on the sales as with us, I suppose," I suggested.

"Not as with you, certainly," replied Dr. Leete, "but nevertheless in one way. The price of every book is made up of the cost of its publication with a royalty for the author. The author fixes this royalty at any figure he pleases. Of course if he puts it unreasonably high it is his own loss, for the book will not sell. The amount of this royalty is set to his credit and he is discharged from other service to the nation for so long a period as this credit at the rate of allowance for the support of citizens shall suffice to support him. If his book be moderately successful, he has thus a furlough for several months, a year, two or three years, and if he in the mean time produces other successful work, the remission of service is extended so far as the sale of that may justify. An author of much acceptance succeeds in supporting himself by his pen during the entire period of service, and the degree of any writer's literary ability, as determined by the popular voice, is thus the measure of the opportunity given him to devote his time to literature. In this respect the outcome of our system is not very dissimilar to that of yours, but there are two notable differences. In the first place, the universally high level of education nowadays gives the popular verdict a conclusiveness on the real merit of literary work which in your day it was as far as possible from having. In the second place, there is no such thing now as favoritism of any sort to interfere with the recognition of true merit.

Every author has precisely the same facilities for bringing his work before the popular tribunal. To judge from the complaints of the writers of your day, this absolute equality of opportunity would have been greatly prized."

"In the recognition of merit in other fields of original genius, such as music, art, invention, design," I said, "I suppose you follow a similar principle."

"Yes," he replied, "although the details differ. In art, for example, as in literature, the people are the sole judges. They vote upon the acceptance of statues and paintings for the public buildings, and their favorable verdict carries with it the artist's remission from other tasks to devote himself to his vocation. On copies of his work disposed of, he also derives the same advantage as the author on sales of his books. In all these lines of original genius the plan pursued is the same to offer a free field to aspirants, and as soon as exceptional talent is recognized to release it from all trammels and let it have free course. The remission of other service in these cases is not intended as a gift or reward, but as the means of obtaining more and higher service. Of course there are various literary, art, and scientific institutes to which membership comes to the famous and is greatly prized. The highest of all honors in the nation, higher than the presidency, which calls merely for good sense and devotion to duty, is the red ribbon awarded by the vote of the people to the great authors, artists, engineers, physicians, and inventors of the generation. Not over a certain number wear it at any one time, though every bright young fellow in the country loses innumerable nights' sleep dreaming of it. I even did myself."

"Just as if mamma and I would have thought any more of you with it," exclaimed Edith; "not that it isn't, of course, a very fine thing to have."

"You had no choice, my dear, but to take your father as you found him and make the best of him," Dr. Leete replied; "but as for your mother, there, she would never have had me if I had not assured her that I was bound to get the red ribbon or at least the blue."

On this extravagance Mrs. Leete's only comment was a smile.

"How about periodicals and newspapers?" I said. "I won't deny that your book publishing system is a considerable improvement on ours, both as to its tendency to encourage a real literary vocation, and, quite as important, to discourage mere scribblers; but I don't see how it can be made to apply to magazines and newspapers. It is very well to make a man pay for publishing a

book, because the expense will be only occasional; but no man could afford the expense of publishing a newspaper every day in the year. It took the deep pockets of our private capitalists to do that, and often exhausted even them before the returns came in. If you have newspapers at all, they must, I fancy, be published by the government at the public expense, with government editors, reflecting government opinions. Now, if your system is so perfect that there is never anything to criticize in the conduct of affairs, this arrangement may answer. Otherwise I should think the lack of an independent unofficial medium for the expression of public opinion would have most unfortunate results. Confess, Dr. Leete, that a free newspaper press, with all that it implies, was a redeeming incident of the old system when capital was in private hands, and that you have to set off the loss of that against your gains in other respects."

"I am afraid I can't give you even that consolation," replied Dr. Leete, laughing. "In the first place, Mr. West, the newspaper press is by no means the only or, as we look at it, the best vehicle for serious criticism of public affairs. To us, the judgments of your newspapers on such themes seem generally to have been crude and flippant, as well as deeply tinctured with prejudice and bitterness. In so far as they may be taken as expressing public opinion, they give an unfavorable impression of the popular intelligence, while so far as they may have formed public opinion, the nation was not to be felicitated. Nowadays, when a citizen desires to make a serious impression upon the public mind as to any aspect of public affairs, he comes out with a book or pamphlet, published as other books are. But this is not because we lack newspapers and magazines, or that they lack the most absolute freedom. The newspaper press is organized so as to be a more perfect expression of public opinion than it possibly could be in your day, when private capital controlled and managed it primarily as a money-making business, and secondarily only as a mouthpiece for the people."

"But," said I, "if the government prints the papers at the public expense, how can it fail to control their policy? Who appoints the editors, if not the government?"

"The government does not pay the expense of the papers, nor appoint their editors, nor in any way exert the slightest influence on their policy," replied Dr. Leete. "The people who take the paper pay the expense of its publication, choose its editor, and remove him when unsatisfactory. You will scarcely say, I

think, that such a newspaper press is not a free organ of popular opinion."

"Decidedly I shall not," I replied, "but how is it practicable?"

"Nothing could be simpler. Supposing some of my neighbors or myself think we ought to have a newspaper reflecting our opinions, and devoted especially to our locality, trade, or profession. We go about among the people till we get the names of such a number that their annual subscriptions will meet the cost of the paper, which is little or big according to the largeness of its constituency. The amount of the subscriptions marked off the credits of the citizens guarantees the nation against loss in publishing the paper, its business, you understand, being that of a publisher purely, with no option to refuse the duty required. The subscribers to the paper now elect somebody as editor, who, if he accepts the office, is discharged from other service during his incumbency. Instead of paying a salary to him, as in your day, the subscribers pay the nation an indemnity equal to the cost of his support for taking him away from the general service. He manages the paper just as one of your editors did, except that he has no counting-room to obey, or interests of private capital as against the public good to defend. At the end of the first year, the subscribers for the next either re-elect the former editor or choose any one else to his place. An able editor, of course, keeps his place indefinitely. As the subscription list enlarges, the funds of the paper increase, and it is improved by the securing of more and better contributors, just as your papers were."

"How is the staff of contributors recompensed, since they cannot be paid in money?"

"The editor settles with them the price of their wares. The amount is transferred to their individual credit from the guarantee credit of the paper, and a remission of service is granted the contributor for a length of time corresponding to the amount credited him, just as to other authors. As to magazines, the system is the same. Those interested in the prospectus of a new periodical pledge enough subscriptions to run it for a year; select their editor, who recompenses his contributors just as in the other case, the printing bureau furnishing the necessary force and material for publication, as a matter of course. When an editor's services are no longer desired, if he cannot earn the right to his time by other literary work, he simply resumes his place in the industrial army. I should add that, though ordinarily the editor is elected only at

the end of the year, and as a rule is continued in office for a term of years, in case of any sudden change he should give to the tone of the paper, provision is made for taking the sense of the subscribers as to his removal at any time."

"However earnestly a man may long for leisure for purposes of study or meditation," I remarked, "he cannot get out of the harness, if I understand you rightly, except in these two ways you have mentioned. He must either by literary, artistic, or inventive productiveness indemnify the nation for the loss of his services, or must get a sufficient number of other people to contribute to such an indemnity."

"It is most certain," replied Dr. Leete, "that no able-bodied man nowadays can evade his share of work and live on the toil of others, whether he calls himself by the fine name of student or confesses to being simply lazy. At the same time our system is elastic enough to give free play to every instinct of human nature which does not aim at dominating others or living on the fruit of others' labor. There is not only the remission by indemnification but the remission by abnegation. Any man in his thirty-third year, his term of service being then half done, can obtain an honorable discharge from the army, provided he accepts for the rest of his life one half the rate of maintenance other citizens receive. It is quite possible to live on this amount, though one must forego the luxuries and elegancies of life, with some, perhaps, of its comforts."

When the ladies retired that evening, Edith brought me a book and said:

"If you should be wakeful to-night, Mr. West, you might be interested in looking over this story by Berrian. It is considered his masterpiece, and will at least give you an idea what the stories nowadays are like."

I sat up in my room that night reading "Penthesilia" till it grew gray in the east, and did not lay it down till I had finished it. And yet let no admirer of the great romancer of the twentieth century resent my saying that at the first reading what most impressed me was not so much what was in the book as what was left out of it. The story-writers of my day would have deemed the making of bricks without straw a light task compared with the construction of a romance from which should be excluded all effects drawn from the contrasts of wealth and poverty, education and ignorance, coarseness and refinement, high and low, all motives drawn from social pride and ambition, the desire of being richer or the fear of being poorer, together with sordid anxieties of any sort for one's self or

others; a romance in which there should, indeed, be love galore, but love unfretted by artificial barriers created by differences of station or possessions, owning no other law but that of the heart. The reading of "Penthesilia" was of more value than almost any amount of explanation would have been in giving me something like a general impression of the social aspect of the twentieth century. The information Dr. Leete had imparted was indeed extensive as to facts, but they had affected my mind as so many separate impressions, which I had as yet succeeded but imperfectly in making cohere. Berrian put them together for me in a picture.

[1] I cannot sufficiently celebrate the glorious liberty that reigns in the public libraries of the twentieth century as compared with the intolerable management of those of the nineteenth century, in which the books were jealously railed away from the people, and obtainable only at an expenditure of time and red tape calculated to discourage any ordinary taste for literature.

CHAPTER 16

Next morning I rose somewhat before the breakfast hour. As I descended the stairs, Edith stepped into the hall from the room which had been the scene of the morning interview between us described some chapters back.

"Ah!" she exclaimed, with a charmingly arch expression, "you thought to slip out unbeknown for another of those solitary morning rambles which have such nice effects on you. But you see I am up too early for you this time. You are fairly caught."

"You discredit the efficacy of your own cure," I said, "by supposing that such a ramble would now be attended with bad consequences."

"I am very glad to hear that," she said. "I was in here arranging some flowers for the breakfast table when I heard you come down, and fancied I detected something surreptitious in your step on the stairs."

"You did me injustice," I replied. "I had no idea of going out at all."

Despite her effort to convey an impression that my interception was purely accidental, I had at the time a dim suspicion of what I afterwards learned to be the fact, namely, that this sweet creature, in pursuance of her self-assumed guardianship over me, had risen for the last two or three mornings at an unheard-of hour, to insure against the possibility of my wandering off alone in case I should be affected as on the former occasion. Receiving permission to assist her in making up the breakfast bouquet, I followed her into the room from which she had emerged.

"Are you sure," she asked, "that you are quite done with those terrible sensations you had that morning?"

"I can't say that I do not have times of feeling decidedly queer," I replied, "moments when my personal identity seems an open question. It would be too much to expect after my experience that I should not have such sensations occasionally, but as for being carried entirely off my feet, as I was on the point of being that morning, I think the danger is past."

"I shall never forget how you looked that morning," she said.

"If you had merely saved my life," I continued, "I might, perhaps, find words to express my gratitude, but it was my reason you saved, and there are no words that would not belittle my debt to you." I spoke with emotion, and her

eyes grew suddenly moist.

"It is too much to believe all this," she said, "but it is very delightful to hear you say it. What I did was very little. I was very much distressed for you, I know. Father never thinks anything ought to astonish us when it can be explained scientifically, as I suppose this long sleep of yours can be, but even to fancy myself in your place makes my head swim. I know that I could not have borne it at all."

"That would depend," I replied, "on whether an angel came to support you with her sympathy in the crisis of your condition, as one came to me." If my face at all expressed the feelings I had a right to have toward this sweet and lovely young girl, who had played so angelic a role toward me, its expression must have been very worshipful just then. The expression or the words, or both together, caused her now to drop her eyes with a charming blush.

"For the matter of that," I said, "if your experience has not been as startling as mine, it must have been rather overwhelming to see a man belonging to a strange century, and apparently a hundred years dead, raised to life."

"It seemed indeed strange beyond any describing at first," she said, "but when we began to put ourselves in your place, and realize how much stranger it must seem to you, I fancy we forgot our own feelings a good deal, at least I know I did. It seemed then not so much astounding as interesting and touching beyond anything ever heard of before."

"But does it not come over you as astounding to sit at table with me, seeing who I am?"

"You must remember that you do not seem so strange to us as we must to you," she answered. "We belong to a future of which you could not form an idea, a generation of which you knew nothing until you saw us. But you belong to a generation of which our forefathers were a part. We know all about it; the names of many of its members are household words with us. We have made a study of your ways of living and thinking; nothing you say or do surprises us, while we say and do nothing which does not seem strange to you. So you see, Mr. West, that if you feel that you can, in time, get accustomed to us, you must not be surprised that from the first we have scarcely found you strange at all."

"I had not thought of it in that way," I replied. "There is indeed much in what you say. One can look back a thousand years easier than forward fifty. A

century is not so very long a retrospect. I might have known your great-grandparents. Possibly I did. Did they live in Boston?"

"I believe so."

"You are not sure, then?"

"Yes," she replied. "Now I think, they did."

"I had a very large circle of acquaintances in the city," I said. "It is not unlikely that I knew or knew of some of them. Perhaps I may have known them well. Wouldn't it be interesting if I should chance to be able to tell you all about your great-grandfather, for instance?"

"Very interesting."

"Do you know your genealogy well enough to tell me who your forbears were in the Boston of my day?"

"Oh, yes."

"Perhaps, then, you will some time tell me what some of their names were."

She was engrossed in arranging a troublesome spray of green, and did not reply at once. Steps upon the stairway indicated that the other members of the family were descending.

"Perhaps, some time," she said.

After breakfast, Dr. Leete suggested taking me to inspect the central warehouse and observe actually in operation the machinery of distribution, which Edith had described to me. As we walked away from the house I said, "It is now several days that I have been living in your household on a most extraordinary footing, or rather on none at all. I have not spoken of this aspect of my position before because there were so many other aspects yet more extraordinary. But now that I am beginning a little to feel my feet under me, and to realize that, however I came here, I am here, and must make the best of it, I must speak to you on this point."

"As for your being a guest in my house," replied Dr. Leete, "I pray you not to begin to be uneasy on that point, for I mean to keep you a long time yet. With all your modesty, you can but realize that such a guest as yourself is an acquisition not willingly to be parted with."

"Thanks, doctor," I said. "It would be absurd, certainly, for me to affect any oversensitiveness about accepting the temporary hospitality of one to whom I owe it that I am not still awaiting the end of the world in a living tomb. But if I

am to be a permanent citizen of this century I must have some standing in it. Now, in my time a person more or less entering the world, however he got in, would not be noticed in the unorganized throng of men, and might make a place for himself anywhere he chose if he were strong enough. But nowadays everybody is a part of a system with a distinct place and function. I am outside the system, and don't see how I can get in; there seems no way to get in, except to be born in or to come in as an emigrant from some other system."

Dr. Leete laughed heartily.

"I admit," he said, "that our system is defective in lacking provision for cases like yours, but you see nobody anticipated additions to the world except by the usual process. You need, however, have no fear that we shall be unable to provide both a place and occupation for you in due time. You have as yet been brought in contact only with the members of my family, but you must not suppose that I have kept your secret. On the contrary, your case, even before your resuscitation, and vastly more since has excited the profoundest interest in the nation. In view of your precarious nervous condition, it was thought best that I should take exclusive charge of you at first, and that you should, through me and my family, receive some general idea of the sort of world you had come back to before you began to make the acquaintance generally of its inhabitants. As to finding a function for you in society, there was no hesitation as to what that would be. Few of us have it in our power to confer so great a service on the nation as you will be able to when you leave my roof, which, however, you must not think of doing for a good time yet."

"What can I possibly do?" I asked. "Perhaps you imagine I have some trade, or art, or special skill. I assure you I have none whatever. I never earned a dollar in my life, or did an hour's work. I am strong, and might be a common laborer, but nothing more."

"If that were the most efficient service you were able to render the nation, you would find that avocation considered quite as respectable as any other," replied Dr. Leete; "but you can do something else better. You are easily the master of all our historians on questions relating to the social condition of the latter part of the nineteenth century, to us one of the most absorbingly interesting periods of history: and whenever in due time you have sufficiently familiarized yourself with our institutions, and are willing to teach us something

concerning those of your day, you will find an historical lectureship in one of our colleges awaiting you."

"Very good! very good indeed," I said, much relieved by so practical a suggestion on a point which had begun to trouble me. "If your people are really so much interested in the nineteenth century, there will indeed be an occupation ready-made for me. I don't think there is anything else that I could possibly earn my salt at, but I certainly may claim without conceit to have some special qualifications for such a post as you describe."

CHAPTER 17

I found the processes at the warehouse quite as interesting as Edith had described them, and became even enthusiastic over the truly remarkable illustration which is seen there of the prodigiously multiplied efficiency which perfect organization can give to labor. It is like a gigantic mill, into the hopper of which goods are being constantly poured by the train-load and shipload, to issue at the other end in packages of pounds and ounces, yards and inches, pints and gallons, corresponding to the infinitely complex personal needs of half a million people. Dr. Leete, with the assistance of data furnished by me as to the way goods were sold in my day, figured out some astounding results in the way of the economies effected by the modern system.

As we set out homeward, I said: "After what I have seen to-day, together with what you have told me, and what I learned under Miss Leete's tutelage at the sample store, I have a tolerably clear idea of your system of distribution, and how it enables you to dispense with a circulating medium. But I should like very much to know something more about your system of production. You have told me in general how your industrial army is levied and organized, but who directs its efforts? What supreme authority determines what shall be done in every department, so that enough of everything is produced and yet no labor wasted? It seems to me that this must be a wonderfully complex and difficult function, requiring very unusual endowments."

"Does it indeed seem so to you?" responded Dr. Leete. "I assure you that it is nothing of the kind, but on the other hand so simple, and depending on principles so obvious and easily applied, that the functionaries at Washington to whom it is trusted require to be nothing more than men of fair abilities to discharge it to the entire satisfaction of the nation. The machine which they direct is indeed a vast one, but so logical in its principles and direct and simple in its workings, that it all but runs itself; and nobody but a fool could derange it, as I think you will agree after a few words of explanation. Since you already have a pretty good idea of the working of the distributive system, let us begin at that end. Even in your day statisticians were able to tell you the number of yards of cotton, velvet, woolen, the number of barrels of flour, potatoes, butter, number of pairs of shoes, hats, and umbrellas annually consumed by the nation.

Owing to the fact that production was in private hands, and that there was no way of getting statistics of actual distribution, these figures were not exact, but they were nearly so. Now that every pin which is given out from a national warehouse is recorded, of course the figures of consumption for any week, month, or year, in the possession of the department of distribution at the end of that period, are precise. On these figures, allowing for tendencies to increase or decrease and for any special causes likely to affect demand, the estimates, say for a year ahead, are based. These estimates, with a proper margin for security, having been accepted by the general administration, the responsibility of the distributive department ceases until the goods are delivered to it. I speak of the estimates being furnished for an entire year ahead, but in reality they cover that much time only in case of the great staples for which the demand can be calculated on as steady. In the great majority of smaller industries for the product of which popular taste fluctuates, and novelty is frequently required, production is kept barely ahead of consumption, the distributive department furnishing frequent estimates based on the weekly state of demand.

"Now the entire field of productive and constructive industry is divided into ten great departments, each representing a group of allied industries, each particular industry being in turn represented by a subordinate bureau, which has a complete record of the plant and force under its control, of the present product, and means of increasing it. The estimates of the distributive department, after adoption by the administration, are sent as mandates to the ten great departments, which allot them to the subordinate bureaus representing the particular industries, and these set the men at work. Each bureau is responsible for the task given it, and this responsibility is enforced by departmental oversight and that of the administration; nor does the distributive department accept the product without its own inspection; while even if in the hands of the consumer an article turns out unfit, the system enables the fault to be traced back to the original workman. The production of the commodities for actual public consumption does not, of course, require by any means all the national force of workers. After the necessary contingents have been detailed for the various industries, the amount of labor left for other employment is expended in creating fixed capital, such as buildings, machinery, engineering works, and so forth."

"One point occurs to me," I said, "on which I should think there might be dissatisfaction. Where there is no opportunity for private enterprise, how is there any assurance that the claims of small minorities of the people to have articles produced, for which there is no wide demand, will be respected? An official decree at any moment may deprive them of the means of gratifying some special taste, merely because the majority does not share it."

"That would be tyranny indeed," replied Dr. Leete, "and you may be very sure that it does not happen with us, to whom liberty is as dear as equality or fraternity. As you come to know our system better, you will see that our officials are in fact, and not merely in name, the agents and servants of the people. The administration has no power to stop the production of any commodity for which there continues to be a demand. Suppose the demand for any article declines to such a point that its production becomes very costly. The price has to be raised in proportion, of course, but as long as the consumer cares to pay it, the production goes on. Again, suppose an article not before produced is demanded. If the administration doubts the reality of the demand, a popular petition guaranteeing a certain basis of consumption compels it to produce the desired article. A government, or a majority, which should undertake to tell the people, or a minority, what they were to eat, drink, or wear, as I believe governments in America did in your day, would be regarded as a curious anachronism indeed. Possibly you had reasons for tolerating these infringements of personal independence, but we should not think them endurable. I am glad you raised this point, for it has given me a chance to show you how much more direct and efficient is the control over production exercised by the individual citizen now than it was in your day, when what you called private initiative prevailed, though it should have been called capitalist initiative, for the average private citizen had little enough share in it."

"You speak of raising the price of costly articles," I said. "How can prices be regulated in a country where there is no competition between buyers or sellers?"

"Just as they were with you," replied Dr. Leete. "You think that needs explaining," he added, as I looked incredulous, "but the explanation need not be long; the cost of the labor which produced it was recognized as the legitimate basis of the price of an article in your day, and so it is in ours. In your day, it

was the difference in wages that made the difference in the cost of labor; now it is the relative number of hours constituting a day's work in different trades, the maintenance of the worker being equal in all cases. The cost of a man's work in a trade so difficult that in order to attract volunteers the hours have to be fixed at four a day is twice as great as that in a trade where the men work eight hours. The result as to the cost of labor, you see, is just the same as if the man working four hours were paid, under your system, twice the wages the others get. This calculation applied to the labor employed in the various processes of a manufactured article gives its price relatively to other articles. Besides the cost of production and transportation, the factor of scarcity affects the prices of some commodities. As regards the great staples of life, of which an abundance can always be secured, scarcity is eliminated as a factor. There is always a large surplus kept on hand from which any fluctuations of demand or supply can be corrected, even in most cases of bad crops. The prices of the staples grow less year by year, but rarely, if ever, rise. There are, however, certain classes of articles permanently, and others temporarily, unequal to the demand, as, for example, fresh fish or dairy products in the latter category, and the products of high skill and rare materials in the other. All that can be done here is to equalize the inconvenience of the scarcity. This is done by temporarily raising the price if the scarcity be temporary, or fixing it high if it be permanent. High prices in your day meant restriction of the articles affected to the rich, but nowadays, when the means of all are the same, the effect is only that those to whom the articles seem most desirable are the ones who purchase them. Of course the nation, as any other caterer for the public needs must be, is frequently left with small lots of goods on its hands by changes in taste, unseasonable weather and various other causes. These it has to dispose of at a sacrifice just as merchants often did in your day, charging up the loss to the expenses of the business. Owing, however, to the vast body of consumers to which such lots can be simultaneously offered, there is rarely any difficulty in getting rid of them at trifling loss. I have given you now some general notion of our system of production; as well as distribution. Do you find it as complex as you expected?"

I admitted that nothing could be much simpler.

"I am sure," said Dr. Leete, "that it is within the truth to say that the head

of one of the myriad private businesses of your day, who had to maintain sleepless vigilance against the fluctuations of the market, the machinations of his rivals, and the failure of his debtors, had a far more trying task than the group of men at Washington who nowadays direct the industries of the entire nation. All this merely shows, my dear fellow, how much easier it is to do things the right way than the wrong. It is easier for a general up in a balloon, with perfect survey of the field, to manoeuvre a million men to victory than for a sergeant to manage a platoon in a thicket."

"The general of this army, including the flower of the manhood of the nation, must be the foremost man in the country, really greater even than the President of the United States," I said.

"He is the President of the United States," replied Dr. Leete, "or rather the most important function of the presidency is the headship of the industrial army."

"How is he chosen?" I asked.

"I explained to you before," replied Dr. Leete, "when I was describing the force of the motive of emulation among all grades of the industrial army, that the line of promotion for the meritorious lies through three grades to the officer's grade, and thence up through the lieutenancies to the captaincy or foremanship, and superintendency or colonel's rank. Next, with an intervening grade in some of the larger trades, comes the general of the guild, under whose immediate control all the operations of the trade are conducted. This officer is at the head of the national bureau representing his trade, and is responsible for its work to the administration. The general of his guild holds a splendid position, and one which amply satisfies the ambition of most men, but above his rank, which may be compared—to follow the military analogies familiar to you—to that of a general of division or major-general, is that of the chiefs of the ten great departments, or groups of allied trades. The chiefs of these ten grand divisions of the industrial army may be compared to your commanders of army corps, or lieutenant-generals, each having from a dozen to a score of generals of separate guilds reporting to him. Above these ten great officers, who form his council, is the general-in-chief, who is the President of the United States.

"The general-in-chief of the industrial army must have passed through all the grades below him, from the common laborers up. Let us see how he rises. As

I have told you, it is simply by the excellence of his record as a worker that one rises through the grades of the privates and becomes a candidate for a lieutenancy. Through the lieutenancies he rises to the colonelcy, or superintendent's position, by appointment from above, strictly limited to the candidates of the best records. The general of the guild appoints to the ranks under him, but he himself is not appointed, but chosen by suffrage."

"By suffrage!" I exclaimed. "Is not that ruinous to the discipline of the guild, by tempting the candidates to intrigue for the support of the workers under them?"

"So it would be, no doubt," replied Dr. Leete, "if the workers had any suffrage to exercise, or anything to say about the choice. But they have nothing. Just here comes in a peculiarity of our system. The general of the guild is chosen from among the superintendents by vote of the honorary members of the guild, that is, of those who have served their time in the guild and received their discharge. As you know, at the age of forty-five we are mustered out of the army of industry, and have the residue of life for the pursuit of our own improvement or recreation. Of course, however, the associations of our active lifetime retain a powerful hold on us. The companionships we formed then remain our companionships till the end of life. We always continue honorary members of our former guilds, and retain the keenest and most jealous interest in their welfare and repute in the hands of the following generation. In the clubs maintained by the honorary members of the several guilds, in which we meet socially, there are no topics of conversation so common as those which relate to these matters, and the young aspirants for guild leadership who can pass the criticism of us old fellows are likely to be pretty well equipped. Recognizing this fact, the nation entrusts to the honorary members of each guild the election of its general, and I venture to claim that no previous form of society could have developed a body of electors so ideally adapted to their office, as regards absolute impartiality, knowledge of the special qualifications and record of candidates, solicitude for the best result, and complete absence of self-interest.

"Each of the ten lieutenant-generals or heads of departments is himself elected from among the generals of the guilds grouped as a department, by vote of the honorary members of the guilds thus grouped. Of course there is a tendency on the part of each guild to vote for its own general, but no guild of

any group has nearly enough votes to elect a man not supported by most of the others. I assure you that these elections are exceedingly lively."

"The President, I suppose, is selected from among the ten heads of the great departments," I suggested.

"Precisely, but the heads of departments are not eligible to the presidency till they have been a certain number of years out of office. It is rarely that a man passes through all the grades to the headship of a department much before he is forty, and at the end of a five years' term he is usually forty-five. If more, he still serves through his term, and if less, he is nevertheless discharged from the industrial army at its termination. It would not do for him to return to the ranks. The interval before he is a candidate for the presidency is intended to give time for him to recognize fully that he has returned into the general mass of the nation, and is identified with it rather than with the industrial army. Moreover, it is expected that he will employ this period in studying the general condition of the army, instead of that of the special group of guilds of which he was the head. From among the former heads of departments who may be eligible at the time, the President is elected by vote of all the men of the nation who are not connected with the industrial army."

"The army is not allowed to vote for President?"

"Certainly not. That would be perilous to its discipline, which it is the business of the President to maintain as the representative of the nation at large. His right hand for this purpose is the inspectorate, a highly important department of our system; to the inspectorate come all complaints or information as to defects in goods, insolence or inefficiency of officials, or dereliction of any sort in the public service. The inspectorate, however, does not wait for complaints. Not only is it on the alert to catch and sift every rumor of a fault in the service, but it is its business, by systematic and constant oversight and inspection of every branch of the army, to find out what is going wrong before anybody else does. The President is usually not far from fifty when elected, and serves five years, forming an honorable exception to the rule of retirement at forty-five. At the end of his term of office, a national Congress is called to receive his report and approve or condemn it. If it is approved, Congress usually elects him to represent the nation for five years more in the international council. Congress, I should also say, passes on the reports of the

outgoing heads of departments, and a disapproval renders any one of them ineligible for President. But it is rare, indeed, that the nation has occasion for other sentiments than those of gratitude toward its high officers. As to their ability, to have risen from the ranks, by tests so various and severe, to their positions, is proof in itself of extraordinary qualities, while as to faithfulness, our social system leaves them absolutely without any other motive than that of winning the esteem of their fellow citizens. Corruption is impossible in a society where there is neither poverty to be bribed nor wealth to bribe, while as to demagoguery or intrigue for office, the conditions of promotion render them out of the question."

"One point I do not quite understand," I said. "Are the members of the liberal professions eligible to the presidency? and if so, how are they ranked with those who pursue the industries proper?"

"They have no ranking with them," replied Dr. Leete. "The members of the technical professions, such as engineers and architects, have a ranking with the constructive guilds; but the members of the liberal professions, the doctors and teachers, as well as the artists and men of letters who obtain remissions of industrial service, do not belong to the industrial army. On this ground they vote for the President, but are not eligible to his office. One of its main duties being the control and discipline of the industrial army, it is essential that the President should have passed through all its grades to understand his business."

"That is reasonable," I said; "but if the doctors and teachers do not know enough of industry to be President, neither, I should think, can the President know enough of medicine and education to control those departments."

"No more does he," was the reply. "Except in the general way that he is responsible for the enforcement of the laws as to all classes, the President has nothing to do with the faculties of medicine and education, which are controlled by boards of regents of their own, in which the President is ex-officio chairman, and has the casting vote. These regents, who, of course, are responsible to Congress, are chosen by the honorary members of the guilds of education and medicine, the retired teachers and doctors of the country."

"Do you know," I said, "the method of electing officials by votes of the retired members of the guilds is nothing more than the application on a national

scale of the plan of government by alumni, which we used to a slight extent occasionally in the management of our higher educational institutions."

"Did you, indeed?" exclaimed Dr. Leete, with animation. "That is quite new to me, and I fancy will be to most of us, and of much interest as well. There has been great discussion as to the germ of the idea, and we fancied that there was for once something new under the sun. Well! well! In your higher educational institutions! that is interesting indeed. You must tell me more of that."

"Truly, there is very little more to tell than I have told already," I replied. "If we had the germ of your idea, it was but as a germ."

CHAPTER 18

That evening I sat up for some time after the ladies had retired, talking with Dr. Leete about the effect of the plan of exempting men from further service to the nation after the age of forty-five, a point brought up by his account of the part taken by the retired citizens in the government.

"At forty-five," said I, "a man still has ten years of good manual labor in him, and twice ten years of good intellectual service. To be superannuated at that age and laid on the shelf must be regarded rather as a hardship than a favor by men of energetic dispositions."

"My dear Mr. West," exclaimed Dr. Leete, beaming upon me, "you cannot have any idea of the piquancy your nineteenth century ideas have for us of this day, the rare quaintness of their effect. Know, O child of another race and yet the same, that the labor we have to render as our part in securing for the nation the means of a comfortable physical existence is by no means regarded as the most important, the most interesting, or the most dignified employment of our powers. We look upon it as a necessary duty to be discharged before we can fully devote ourselves to the higher exercise of our faculties, the intellectual and spiritual enjoyments and pursuits which alone mean life. Everything possible is indeed done by the just distribution of burdens, and by all manner of special attractions and incentives to relieve our labor of irksomeness, and, except in a comparative sense, it is not usually irksome, and is often inspiring. But it is not our labor, but the higher and larger activities which the performance of our task will leave us free to enter upon, that are considered the main business of existence.

"Of course not all, nor the majority, have those scientific, artistic, literary, or scholarly interests which make leisure the one thing valuable to their possessors. Many look upon the last half of life chiefly as a period for enjoyment of other sorts; for travel, for social relaxation in the company of their life-time friends; a time for the cultivation of all manner of personal idiosyncrasies and special tastes, and the pursuit of every imaginable form of recreation; in a word, a time for the leisurely and unperturbed appreciation of the good things of the world which they have helped to create. But, whatever the differences between our individual tastes as to the use we shall put our leisure to, we all agree in

looking forward to the date of our discharge as the time when we shall first enter upon the full enjoyment of our birthright, the period when we shall first really attain our majority and become enfranchised from discipline and control, with the fee of our lives vested in ourselves. As eager boys in your day anticipated twenty-one, so men nowadays look forward to forty-five. At twenty-one we become men, but at forty-five we renew youth. Middle age and what you would have called old age are considered, rather than youth, the enviable time of life. Thanks to the better conditions of existence nowadays, and above all the freedom of every one from care, old age approaches many years later and has an aspect far more benign than in past times. Persons of average constitution usually live to eighty-five or ninety, and at forty-five we are physically and mentally younger, I fancy, than you were at thirty-five. It is a strange reflection that at forty-five, when we are just entering upon the most enjoyable period of life, you already began to think of growing old and to look backward. With you it was the forenoon, with us it is the afternoon, which is the brighter half of life."

After this I remember that our talk branched into the subject of popular sports and recreations at the present time as compared with those of the nineteenth century.

"In one respect," said Dr. Leete, "there is a marked difference. The professional sportsmen, which were such a curious feature of your day, we have nothing answering to, nor are the prizes for which our athletes contend money prizes, as with you. Our contests are always for glory only. The generous rivalry existing between the various guilds, and the loyalty of each worker to his own, afford a constant stimulation to all sorts of games and matches by sea and land, in which the young men take scarcely more interest than the honorary guildsmen who have served their time. The guild yacht races off Marblehead take place next week, and you will be able to judge for yourself of the popular enthusiasm which such events nowadays call out as compared with your day. The demand for 'panem ef circenses' preferred by the Roman populace is recognized nowadays as a wholly reasonable one. If bread is the first necessity of life, recreation is a close second, and the nation caters for both. Americans of the nineteenth century were as unfortunate in lacking an adequate provision for the one sort of need as for the other. Even if the people of that period had enjoyed larger leisure, they would, I fancy, have often been at a loss how to pass

it agreeably. We are never in that predicament."

CHAPTER 19

In the course of an early morning constitutional I visited Charlestown. Among the changes, too numerous to attempt to indicate, which mark the lapse of a century in that quarter, I particularly noted the total disappearance of the old state prison.

"That went before my day, but I remember hearing about it," said Dr. Leete, when I alluded to the fact at the breakfast table. "We have no jails nowadays. All cases of atavism are treated in the hospitals."

"Of atavism!" I exclaimed, staring.

"Why, yes," replied Dr. Leete. "The idea of dealing punitively with those unfortunates was given up at least fifty years ago, and I think more."

"I don't quite understand you," I said. "Atavism in my day was a word applied to the cases of persons in whom some trait of a remote ancestor recurred in a noticeable manner. Am I to understand that crime is nowadays looked upon as the recurrence of an ancestral trait?"

"I beg your pardon," said Dr. Leete with a smile half humorous, half deprecating, "but since you have so explicitly asked the question, I am forced to say that the fact is precisely that."

After what I had already learned of the moral contrasts between the nineteenth and the twentieth centuries, it was doubtless absurd in me to begin to develop sensitiveness on the subject, and probably if Dr. Leete had not spoken with that apologetic air and Mrs. Leete and Edith shown a corresponding embarrassment, I should not have flushed, as I was conscious I did.

"I was not in much danger of being vain of my generation before," I said; "but, really—"

"This is your generation, Mr. West," interposed Edith. "It is the one in which you are living, you know, and it is only because we are alive now that we call it ours."

"Thank you. I will try to think of it so," I said, and as my eyes met hers their expression quite cured my senseless sensitiveness. "After all," I said, with a laugh, "I was brought up a Calvinist, and ought not to be startled to hear crime spoken of as an ancestral trait."

"In point of fact," said Dr. Leete, "our use of the word is no reflection at all on your generation, if, begging Edith's pardon, we may call it yours, so far as seeming to imply that we think ourselves, apart from our circumstances, better than you were. In your day fully nineteen twentieths of the crime, using the word broadly to include all sorts of misdemeanors, resulted from the inequality in the possessions of individuals; want tempted the poor, lust of greater gains, or the desire to preserve former gains, tempted the well-to-do. Directly or indirectly, the desire for money, which then meant every good thing, was the motive of all this crime, the taproot of a vast poison growth, which the machinery of law, courts, and police could barely prevent from choking your civilization outright. When we made the nation the sole trustee of the wealth of the people, and guaranteed to all abundant maintenance, on the one hand abolishing want, and on the other checking the accumulation of riches, we cut this root, and the poison tree that overshadowed your society withered, like Jonah's gourd, in a day. As for the comparatively small class of violent crimes against persons, unconnected with any idea of gain, they were almost wholly confined, even in your day, to the ignorant and bestial; and in these days, when education and good manners are not the monopoly of a few, but universal, such atrocities are scarcely ever heard of. You now see why the word 'atavism' is used for crime. It is because nearly all forms of crime known to you are motiveless now, and when they appear can only be explained as the outcropping of ancestral traits. You used to call persons who stole, evidently without any rational motive, kleptomaniacs, and when the case was clear deemed it absurd to punish them as thieves. Your attitude toward the genuine kleptomaniac is precisely ours toward the victim of atavism, an attitude of compassion and firm but gentle restraint."

"Your courts must have an easy time of it," I observed. "With no private property to speak of, no disputes between citizens over business relations, no real estate to divide or debts to collect, there must be absolutely no civil business at all for them; and with no offenses against property, and mighty few of any sort to provide criminal cases, I should think you might almost do without judges and lawyers altogether."

"We do without the lawyers, certainly," was Dr. Leete's reply. "It would not seem reasonable to us, in a case where the only interest of the nation is to find

out the truth, that persons should take part in the proceedings who had an acknowledged motive to color it."

"But who defends the accused?"

"If he is a criminal he needs no defense, for he pleads guilty in most instances," replied Dr. Leete. "The plea of the accused is not a mere formality with us, as with you. It is usually the end of the case."

"You don't mean that the man who pleads not guilty is thereupon discharged?"

"No, I do not mean that. He is not accused on light grounds, and if he denies his guilt, must still be tried. But trials are few, for in most cases the guilty man pleads guilty. When he makes a false plea and is clearly proved guilty, his penalty is doubled. Falsehood is, however, so despised among us that few offenders would lie to save themselves."

"That is the most astounding thing you have yet told me," I exclaimed. "If lying has gone out of fashion, this is indeed the 'new heavens and the new earth wherein dwelleth righteousness,' which the prophet foretold."

"Such is, in fact, the belief of some persons nowadays," was the doctor's answer. "They hold that we have entered upon the millennium, and the theory from their point of view does not lack plausibility. But as to your astonishment at finding that the world has outgrown lying, there is really no ground for it. Falsehood, even in your day, was not common between gentlemen and ladies, social equals. The lie of fear was the refuge of cowardice, and the lie of fraud the device of the cheat. The inequalities of men and the lust of acquisition offered a constant premium on lying at that time. Yet even then, the man who neither feared another nor desired to defraud him scorned falsehood. Because we are now all social equals, and no man either has anything to fear from another or can gain anything by deceiving him, the contempt of falsehood is so universal that it is rarely, as I told you, that even a criminal in other respects will be found willing to lie. When, however, a plea of not guilty is returned, the judge appoints two colleagues to state the opposite sides of the case. How far these men are from being like your hired advocates and prosecutors, determined to acquit or convict, may appear from the fact that unless both agree that the verdict found is just, the case is tried over, while anything like bias in the tone of either of the judges stating the case would be a shocking scandal."

"Do I understand," I said, "that it is a judge who states each side of the case as well as a judge who hears it?"

"Certainly. The judges take turns in serving on the bench and at the bar, and are expected to maintain the judicial temper equally whether in stating or deciding a case. The system is indeed in effect that of trial by three judges occupying different points of view as to the case. When they agree upon a verdict, we believe it to be as near to absolute truth as men well can come."

"You have given up the jury system, then?"

"It was well enough as a corrective in the days of hired advocates, and a bench sometimes venal, and often with a tenure that made it dependent, but is needless now. No conceivable motive but justice could actuate our judges."

"How are these magistrates selected?"

"They are an honorable exception to the rule which discharges all men from service at the age of forty-five. The President of the nation appoints the necessary judges year by year from the class reaching that age. The number appointed is, of course, exceedingly few, and the honor so high that it is held an offset to the additional term of service which follows, and though a judge's appointment may be declined, it rarely is. The term is five years, without eligibility to reappointment. The members of the Supreme Court, which is the guardian of the constitution, are selected from among the lower judges. When a vacancy in that court occurs, those of the lower judges, whose terms expire that year, select, as their last official act, the one of their colleagues left on the bench whom they deem fittest to fill it."

"There being no legal profession to serve as a school for judges," I said, "they must, of course, come directly from the law school to the bench."

"We have no such things as law schools," replied the doctor smiling. "The law as a special science is obsolete. It was a system of casuistry which the elaborate artificiality of the old order of society absolutely required to interpret it, but only a few of the plainest and simplest legal maxims have any application to the existing state of the world. Everything touching the relations of men to one another is now simpler, beyond any comparison, than in your day. We should have no sort of use for the hair-splitting experts who presided and argued in your courts. You must not imagine, however, that we have any disrespect for those ancient worthies because we have no use for them. On the

contrary, we entertain an unfeigned respect, amounting almost to awe, for the men who alone understood and were able to expound the interminable complexity of the rights of property, and the relations of commercial and personal dependence involved in your system. What, indeed, could possibly give a more powerful impression of the intricacy and artificiality of that system than the fact that it was necessary to set apart from other pursuits the cream of the intellect of every generation, in order to provide a body of pundits able to make it even vaguely intelligible to those whose fates it determined. The treatises of your great lawyers, the works of Blackstone and Chitty, of Story and Parsons, stand in our museums, side by side with the tomes of Duns Scotus and his fellow scholastics, as curious monuments of intellectual subtlety devoted to subjects equally remote from the interests of modern men. Our judges are simply widely informed, judicious, and discreet men of ripe years.

"I should not fail to speak of one important function of the minor judges," added Dr. Leete. "This is to adjudicate all cases where a private of the industrial army makes a complaint of unfairness against an officer. All such questions are heard and settled without appeal by a single judge, three judges being required only in graver cases. The efficiency of industry requires the strictest discipline in the army of labor, but the claim of the workman to just and considerate treatment is backed by the whole power of the nation. The officer commands and the private obeys, but no officer is so high that he would dare display an overbearing manner toward a workman of the lowest class. As for churlishness or rudeness by an official of any sort, in his relations to the public, not one among minor offenses is more sure of a prompt penalty than this. Not only justice but civility is enforced by our judges in all sorts of intercourse. No value of service is accepted as a set-off to boorish or offensive manners."

It occurred to me, as Dr. Leete was speaking, that in all his talk I had heard much of the nation and nothing of the state governments. Had the organization of the nation as an industrial unit done away with the states? I asked.

"Necessarily," he replied. "The state governments would have interfered with the control and discipline of the industrial army, which, of course, required to be central and uniform. Even if the state governments had not become inconvenient for other reasons, they were rendered superfluous by the prodigious simplification in the task of government since your day. Almost the

sole function of the administration now is that of directing the industries of the country. Most of the purposes for which governments formerly existed no longer remain to be subserved. We have no army or navy, and no military organization. We have no departments of state or treasury, no excise or revenue services, no taxes or tax collectors. The only function proper of government, as known to you, which still remains, is the judiciary and police system. I have already explained to you how simple is our judicial system as compared with your huge and complex machine. Of course the same absence of crime and temptation to it, which make the duties of judges so light, reduces the number and duties of the police to a minimum."

"But with no state legislatures, and Congress meeting only once in five years, how do you get your legislation done?"

"We have no legislation," replied Dr. Leete, "that is, next to none. It is rarely that Congress, even when it meets, considers any new laws of consequence, and then it only has power to commend them to the following Congress, lest anything be done hastily. If you will consider a moment, Mr. West, you will see that we have nothing to make laws about. The fundamental principles on which our society is founded settle for all time the strifes and misunderstandings which in your day called for legislation.

"Fully ninety-nine hundredths of the laws of that time concerned the definition and protection of private property and the relations of buyers and sellers. There is neither private property, beyond personal belongings, now, nor buying and selling, and therefore the occasion of nearly all the legislation formerly necessary has passed away. Formerly, society was a pyramid poised on its apex. All the gravitations of human nature were constantly tending to topple it over, and it could be maintained upright, or rather upwrong (if you will pardon the feeble witticism), by an elaborate system of constantly renewed props and buttresses and guy-ropes in the form of laws. A central Congress and forty state legislatures, turning out some twenty thousand laws a year, could not make new props fast enough to take the place of those which were constantly breaking down or becoming ineffectual through some shifting of the strain. Now society rests on its base, and is in as little need of artificial supports as the everlasting hills."

"But you have at least municipal governments besides the one central

authority?"

"Certainly, and they have important and extensive functions in looking out for the public comfort and recreation, and the improvement and embellishment of the villages and cities."

"But having no control over the labor of their people, or means of hiring it, how can they do anything?"

"Every town or city is conceded the right to retain, for its own public works, a certain proportion of the quota of labor its citizens contribute to the nation. This proportion, being assigned it as so much credit, can be applied in any way desired."

CHAPTER 20

That afternoon Edith casually inquired if I had yet revisited the underground chamber in the garden in which I had been found.

"Not yet," I replied. "To be frank, I have shrunk thus far from doing so, lest the visit might revive old associations rather too strongly for my mental equilibrium."

"Ah, yes!" she said, "I can imagine that you have done well to stay away. I ought to have thought of that."

"No," I said, "I am glad you spoke of it. The danger, if there was any, existed only during the first day or two. Thanks to you, chiefly and always, I feel my footing now so firm in this new world, that if you will go with me to keep the ghosts off, I should really like to visit the place this afternoon."

Edith demurred at first, but, finding that I was in earnest, consented to accompany me. The rampart of earth thrown up from the excavation was visible among the trees from the house, and a few steps brought us to the spot. All remained as it was at the point when work was interrupted by the discovery of the tenant of the chamber, save that the door had been opened and the slab from the roof replaced. Descending the sloping sides of the excavation, we went in at the door and stood within the dimly lighted room.

Everything was just as I had beheld it last on that evening one hundred and thirteen years previous, just before closing my eyes for that long sleep. I stood for some time silently looking about me. I saw that my companion was furtively regarding me with an expression of awed and sympathetic curiosity. I put out my hand to her and she placed hers in it, the soft fingers responding with a reassuring pressure to my clasp. Finally she whispered, "Had we not better go out now? You must not try yourself too far. Oh, how strange it must be to you!"

"On the contrary," I replied, "it does not seem strange; that is the strangest part of it."

"Not strange?" she echoed.

"Even so," I replied. "The emotions with which you evidently credit me, and which I anticipated would attend this visit, I simply do not feel. I realize all that these surroundings suggest, but without the agitation I expected. You can't be nearly as much surprised at this as I am myself. Ever since that terrible

morning when you came to my help, I have tried to avoid thinking of my former life, just as I have avoided coming here, for fear of the agitating effects. I am for all the world like a man who has permitted an injured limb to lie motionless under the impression that it is exquisitely sensitive, and on trying to move it finds that it is paralyzed."

"Do you mean your memory is gone?"

"Not at all. I remember everything connected with my former life, but with a total lack of keen sensation. I remember it for clearness as if it had been but a day since then, but my feelings about what I remember are as faint as if to my consciousness, as well as in fact, a hundred years had intervened. Perhaps it is possible to explain this, too. The effect of change in surroundings is like that of lapse of time in making the past seem remote. When I first woke from that trance, my former life appeared as yesterday, but now, since I have learned to know my new surroundings, and to realize the prodigious changes that have transformed the world, I no longer find it hard, but very easy, to realize that I have slept a century. Can you conceive of such a thing as living a hundred years in four days? It really seems to me that I have done just that, and that it is this experience which has given so remote and unreal an appearance to my former life. Can you see how such a thing might be?"

"I can conceive it," replied Edith, meditatively, "and I think we ought all to be thankful that it is so, for it will save you much suffering, I am sure."

"Imagine," I said, in an effort to explain, as much to myself as to her, the strangeness of my mental condition, "that a man first heard of a bereavement many, many years, half a lifetime perhaps, after the event occurred. I fancy his feeling would be perhaps something as mine is. When I think of my friends in the world of that former day, and the sorrow they must have felt for me, it is with a pensive pity, rather than keen anguish, as of a sorrow long, long ago ended."

"You have told us nothing yet of your friends," said Edith. "Had you many to mourn you?"

"Thank God, I had very few relatives, none nearer than cousins," I replied. "But there was one, not a relative, but dearer to me than any kin of blood. She had your name. She was to have been my wife soon. Ah me!"

"Ah me!" sighed the Edith by my side. "Think of the heartache she must have had."

Something in the deep feeling of this gentle girl touched a chord in my benumbed heart. My eyes, before so dry, were flooded with the tears that had till now refused to come. When I had regained my composure, I saw that she too had been weeping freely.

"God bless your tender heart," I said. "Would you like to see her picture?"

A small locket with Edith Bartlett's picture, secured about my neck with a gold chain, had lain upon my breast all through that long sleep, and removing this I opened and gave it to my companion. She took it with eagerness, and after poring long over the sweet face, touched the picture with her lips.

"I know that she was good and lovely enough to well deserve your tears," she said; "but remember her heartache was over long ago, and she has been in heaven for nearly a century."

It was indeed so. Whatever her sorrow had once been, for nearly a century she had ceased to weep, and, my sudden passion spent, my own tears dried away. I had loved her very dearly in my other life, but it was a hundred years ago! I do not know but some may find in this confession evidence of lack of feeling, but I think, perhaps, that none can have had an experience sufficiently like mine to enable them to judge me. As we were about to leave the chamber, my eye rested upon the great iron safe which stood in one corner. Calling my companion's attention to it, I said:

"This was my strong room as well as my sleeping room. In the safe yonder are several thousand dollars in gold, and any amount of securities. If I had known when I went to sleep that night just how long my nap would be, I should still have thought that the gold was a safe provision for my needs in any country or any century, however distant. That a time would ever come when it would lose its purchasing power, I should have considered the wildest of fancies. Nevertheless, here I wake up to find myself among a people of whom a cartload of gold will not procure a loaf of bread."

As might be expected, I did not succeed in impressing Edith that there was anything remarkable in this fact. "Why in the world should it?" she merely asked.

CHAPTER 21

It had been suggested by Dr. Leete that we should devote the next morning to an inspection of the schools and colleges of the city, with some attempt on his own part at an explanation of the educational system of the twentieth century.

"You will see," said he, as we set out after breakfast, "many very important differences between our methods of education and yours, but the main difference is that nowadays all persons equally have those opportunities of higher education which in your day only an infinitesimal portion of the population enjoyed. We should think we had gained nothing worth speaking of, in equalizing the physical comfort of men, without this educational equality."

"The cost must be very great," I said.

"If it took half the revenue of the nation, nobody would grudge it," replied Dr. Leete, "nor even if it took it all save a bare pittance. But in truth the expense of educating ten thousand youth is not ten nor five times that of educating one thousand. The principle which makes all operations on a large scale proportionally cheaper than on a small scale holds as to education also."

"College education was terribly expensive in my day," said I.

"If I have not been misinformed by our historians," Dr. Leete answered, "it was not college education but college dissipation and extravagance which cost so highly. The actual expense of your colleges appears to have been very low, and would have been far lower if their patronage had been greater. The higher education nowadays is as cheap as the lower, as all grades of teachers, like all other workers, receive the same support. We have simply added to the common school system of compulsory education, in vogue in Massachusetts a hundred years ago, a half dozen higher grades, carrying the youth to the age of twenty-one and giving him what you used to call the education of a gentleman, instead of turning him loose at fourteen or fifteen with no mental equipment beyond reading, writing, and the multiplication table."

"Setting aside the actual cost of these additional years of education," I replied, "we should not have thought we could afford the loss of time from industrial pursuits. Boys of the poorer classes usually went to work at sixteen or younger, and knew their trade at twenty."

"We should not concede you any gain even in material product by that

plan," Dr. Leete replied. "The greater efficiency which education gives to all sorts of labor, except the rudest, makes up in a short period for the time lost in acquiring it."

"We should also have been afraid," said I, "that a high education, while it adapted men to the professions, would set them against manual labor of all sorts."

"That was the effect of high education in your day, I have read," replied the doctor; "and it was no wonder, for manual labor meant association with a rude, coarse, and ignorant class of people. There is no such class now. It was inevitable that such a feeling should exist then, for the further reason that all men receiving a high education were understood to be destined for the professions or for wealthy leisure, and such an education in one neither rich nor professional was a proof of disappointed aspirations, an evidence of failure, a badge of inferiority rather than superiority. Nowadays, of course, when the highest education is deemed necessary to fit a man merely to live, without any reference to the sort of work he may do, its possession conveys no such implication."

"After all," I remarked, "no amount of education can cure natural dullness or make up for original mental deficiencies. Unless the average natural mental capacity of men is much above its level in my day, a high education must be pretty nearly thrown away on a large element of the population. We used to hold that a certain amount of susceptibility to educational influences is required to make a mind worth cultivating, just as a certain natural fertility in soil is required if it is to repay tilling."

"Ah," said Dr. Leete, "I am glad you used that illustration, for it is just the one I would have chosen to set forth the modern view of education. You say that land so poor that the product will not repay the labor of tilling is not cultivated. Nevertheless, much land that does not begin to repay tilling by its product was cultivated in your day and is in ours. I refer to gardens, parks, lawns, and, in general, to pieces of land so situated that, were they left to grow up to weeds and briers, they would be eyesores and inconveniencies to all about. They are therefore tilled, and though their product is little, there is yet no land that, in a wider sense, better repays cultivation. So it is with the men and women with whom we mingle in the relations of society, whose voices are always in our ears,

whose behavior in innumerable ways affects our enjoyment—who are, in fact, as much conditions of our lives as the air we breathe, or any of the physical elements on which we depend. If, indeed, we could not afford to educate everybody, we should choose the coarsest and dullest by nature, rather than the brightest, to receive what education we could give. The naturally refined and intellectual can better dispense with aids to culture than those less fortunate in natural endowments.

"To borrow a phrase which was often used in your day, we should not consider life worth living if we had to be surrounded by a population of ignorant, boorish, coarse, wholly uncultivated men and women, as was the plight of the few educated in your day. Is a man satisfied, merely because he is perfumed himself, to mingle with a malodorous crowd? Could he take more than a very limited satisfaction, even in a palatial apartment, if the windows on all four sides opened into stable yards? And yet just that was the situation of those considered most fortunate as to culture and refinement in your day. I know that the poor and ignorant envied the rich and cultured then; but to us the latter, living as they did, surrounded by squalor and brutishness, seem little better off than the former. The cultured man in your age was like one up to the neck in a nauseous bog solacing himself with a smelling bottle. You see, perhaps, now, how we look at this question of universal high education. No single thing is so important to every man as to have for neighbors intelligent, companionable persons. There is nothing, therefore, which the nation can do for him that will enhance so much his own happiness as to educate his neighbors. When it fails to do so, the value of his own education to him is reduced by half, and many of the tastes he has cultivated are made positive sources of pain.

"To educate some to the highest degree, and leave the mass wholly uncultivated, as you did, made the gap between them almost like that between different natural species, which have no means of communication. What could be more inhuman than this consequence of a partial enjoyment of education! Its universal and equal enjoyment leaves, indeed, the differences between men as to natural endowments as marked as in a state of nature, but the level of the lowest is vastly raised. Brutishness is eliminated. All have some inkling of the humanities, some appreciation of the things of the mind, and an admiration for the still higher culture they have fallen short of. They have become capable of

receiving and imparting, in various degrees, but all in some measure, the pleasures and inspirations of a refined social life. The cultured society of the nineteenth century—what did it consist of but here and there a few microscopic oases in a vast, unbroken wilderness? The proportion of individuals capable of intellectual sympathies or refined intercourse, to the mass of their contemporaries, used to be so infinitesimal as to be in any broad view of humanity scarcely worth mentioning. One generation of the world to-day represents a greater volume of intellectual life than any five centuries ever did before.

"There is still another point I should mention in stating the grounds on which nothing less than the universality of the best education could now be tolerated," continued Dr. Leete, "and that is, the interest of the coming generation in having educated parents. To put the matter in a nutshell, there are three main grounds on which our educational system rests: first, the right of every man to the completest education the nation can give him on his own account, as necessary to his enjoyment of himself; second, the right of his fellow-citizens to have him educated, as necessary to their enjoyment of his society; third, the right of the unborn to be guaranteed an intelligent and refined parentage."

I shall not describe in detail what I saw in the schools that day. Having taken but slight interest in educational matters in my former life, I could offer few comparisons of interest. Next to the fact of the universality of the higher as well as the lower education, I was most struck with the prominence given to physical culture, and the fact that proficiency in athletic feats and games as well as in scholarship had a place in the rating of the youth.

"The faculty of education," Dr. Leete explained, "is held to the same responsibility for the bodies as for the minds of its charges. The highest possible physical, as well as mental, development of every one is the double object of a curriculum which lasts from the age of six to that of twenty-one."

The magnificent health of the young people in the schools impressed me strongly. My previous observations, not only of the notable personal endowments of the family of my host, but of the people I had seen in my walks abroad, had already suggested the idea that there must have been something like a general improvement in the physical standard of the race since my day,

and now, as I compared these stalwart young men and fresh, vigorous maidens with the young people I had seen in the schools of the nineteenth century, I was moved to impart my thought to Dr. Leete. He listened with great interest to what I said.

"Your testimony on this point," he declared, "is invaluable. We believe that there has been such an improvement as you speak of, but of course it could only be a matter of theory with us. It is an incident of your unique position that you alone in the world of to-day can speak with authority on this point. Your opinion, when you state it publicly, will, I assure you, make a profound sensation. For the rest it would be strange, certainly, if the race did not show an improvement. In your day, riches debauched one class with idleness of mind and body, while poverty sapped the vitality of the masses by overwork, bad food, and pestilent homes. The labor required of children, and the burdens laid on women, enfeebled the very springs of life. Instead of these maleficent circumstances, all now enjoy the most favorable conditions of physical life; the young are carefully nurtured and studiously cared for; the labor which is required of all is limited to the period of greatest bodily vigor, and is never excessive; care for one's self and one's family, anxiety as to livelihood, the strain of a ceaseless battle for life—all these influences, which once did so much to wreck the minds and bodies of men and women, are known no more. Certainly, an improvement of the species ought to follow such a change. In certain specific respects we know, indeed, that the improvement has taken place. Insanity, for instance, which in the nineteenth century was so terribly common a product of your insane mode of life, has almost disappeared, with its alternative, suicide."

CHAPTER 22

We had made an appointment to meet the ladies at the dining-hall for dinner, after which, having some engagement, they left us sitting at table there, discussing our wine and cigars with a multitude of other matters.

"Doctor," said I, in the course of our talk, "morally speaking, your social system is one which I should be insensate not to admire in comparison with any previously in vogue in the world, and especially with that of my own most unhappy century. If I were to fall into a mesmeric sleep tonight as lasting as that other and meanwhile the course of time were to take a turn backward instead of forward, and I were to wake up again in the nineteenth century, when I had told my friends what I had seen, they would every one admit that your world was a paradise of order, equity, and felicity. But they were a very practical people, my contemporaries, and after expressing their admiration for the moral beauty and material splendor of the system, they would presently begin to cipher and ask how you got the money to make everybody so happy; for certainly, to support the whole nation at a rate of comfort, and even luxury, such as I see around me, must involve vastly greater wealth than the nation produced in my day. Now, while I could explain to them pretty nearly everything else of the main features of your system, I should quite fail to answer this question, and failing there, they would tell me, for they were very close cipherers, that I had been dreaming; nor would they ever believe anything else. In my day, I know that the total annual product of the nation, although it might have been divided with absolute equality, would not have come to more than three or four hundred dollars per head, not very much more than enough to supply the necessities of life with few or any of its comforts. How is it that you have so much more?"

"That is a very pertinent question, Mr. West," replied Dr. Leete, "and I should not blame your friends, in the case you supposed, if they declared your story all moonshine, failing a satisfactory reply to it. It is a question which I cannot answer exhaustively at any one sitting, and as for the exact statistics to bear out my general statements, I shall have to refer you for them to books in my library, but it would certainly be a pity to leave you to be put to confusion by your old acquaintances, in case of the contingency you speak of, for lack of a few suggestions.

"Let us begin with a number of small items wherein we economize wealth as compared with you. We have no national, state, county, or municipal debts, or payments on their account. We have no sort of military or naval expenditures for men or materials, no army, navy, or militia. We have no revenue service, no swarm of tax assessors and collectors. As regards our judiciary, police, sheriffs, and jailers, the force which Massachusetts alone kept on foot in your day far more than suffices for the nation now. We have no criminal class preying upon the wealth of society as you had. The number of persons, more or less absolutely lost to the working force through physical disability, of the lame, sick, and debilitated, which constituted such a burden on the able-bodied in your day, now that all live under conditions of health and comfort, has shrunk to scarcely perceptible proportions, and with every generation is becoming more completely eliminated.

"Another item wherein we save is the disuse of money and the thousand occupations connected with financial operations of all sorts, whereby an army of men was formerly taken away from useful employments. Also consider that the waste of the very rich in your day on inordinate personal luxury has ceased, though, indeed, this item might easily be over-estimated. Again, consider that there are no idlers now, rich or poor—no drones.

"A very important cause of former poverty was the vast waste of labor and materials which resulted from domestic washing and cooking, and the performing separately of innumerable other tasks to which we apply the cooperative plan.

"A larger economy than any of these—yes, of all together—is effected by the organization of our distributing system, by which the work done once by the merchants, traders, storekeepers, with their various grades of jobbers, wholesalers, retailers, agents, commercial travelers, and middlemen of all sorts, with an excessive waste of energy in needless transportation and interminable handlings, is performed by one tenth the number of hands and an unnecessary turn of not one wheel. Something of what our distributing system is like you know. Our statisticians calculate that one eightieth part of our workers suffices for all the processes of distribution which in your day required one eighth of the population, so much being withdrawn from the force engaged in productive labor."

"I begin to see," I said, "where you get your greater wealth."

"I beg your pardon," replied Dr. Leete, "but you scarcely do as yet. The economies I have mentioned thus far, in the aggregate, considering the labor they would save directly and indirectly through saving of material, might possibly be equivalent to the addition to your annual production of wealth of one half its former total. These items are, however, scarcely worth mentioning in comparison with other prodigious wastes, now saved, which resulted inevitably from leaving the industries of the nation to private enterprise. However great the economies your contemporaries might have devised in the consumption of products, and however marvelous the progress of mechanical invention, they could never have raised themselves out of the slough of poverty so long as they held to that system.

"No mode more wasteful for utilizing human energy could be devised, and for the credit of the human intellect it should be remembered that the system never was devised, but was merely a survival from the rude ages when the lack of social organization made any sort of cooperation impossible."

"I will readily admit," I said, "that our industrial system was ethically very bad, but as a mere wealth-making machine, apart from moral aspects, it seemed to us admirable."

"As I said," responded the doctor, "the subject is too large to discuss at length now, but if you are really interested to know the main criticisms which we moderns make on your industrial system as compared with our own, I can touch briefly on some of them.

"The wastes which resulted from leaving the conduct of industry to irresponsible individuals, wholly without mutual understanding or concert, were mainly four: first, the waste by mistaken undertakings; second, the waste from the competition and mutual hostility of those engaged in industry; third, the waste by periodical gluts and crises, with the consequent interruptions of industry; fourth, the waste from idle capital and labor, at all times. Any one of these four great leaks, were all the others stopped, would suffice to make the difference between wealth and poverty on the part of a nation.

"Take the waste by mistaken undertakings, to begin with. In your day the production and distribution of commodities being without concert or organization, there was no means of knowing just what demand there was for

any class of products, or what was the rate of supply. Therefore, any enterprise by a private capitalist was always a doubtful experiment. The projector having no general view of the field of industry and consumption, such as our government has, could never be sure either what the people wanted, or what arrangements other capitalists were making to supply them. In view of this, we are not surprised to learn that the chances were considered several to one in favor of the failure of any given business enterprise, and that it was common for persons who at last succeeded in making a hit to have failed repeatedly. If a shoemaker, for every pair of shoes he succeeded in completing, spoiled the leather of four or five pair, besides losing the time spent on them, he would stand about the same chance of getting rich as your contemporaries did with their system of private enterprise, and its average of four or five failures to one success.

"The next of the great wastes was that from competition. The field of industry was a battlefield as wide as the world, in which the workers wasted, in assailing one another, energies which, if expended in concerted effort, as to-day, would have enriched all. As for mercy or quarter in this warfare, there was absolutely no suggestion of it. To deliberately enter a field of business and destroy the enterprises of those who had occupied it previously, in order to plant one's own enterprise on their ruins, was an achievement which never failed to command popular admiration. Nor is there any stretch of fancy in comparing this sort of struggle with actual warfare, so far as concerns the mental agony and physical suffering which attended the struggle, and the misery which overwhelmed the defeated and those dependent on them. Now nothing about your age is, at first sight, more astounding to a man of modern times than the fact that men engaged in the same industry, instead of fraternizing as comrades and co-laborers to a common end, should have regarded each other as rivals and enemies to be throttled and overthrown. This certainly seems like sheer madness, a scene from bedlam. But more closely regarded, it is seen to be no such thing. Your contemporaries, with their mutual throat-cutting, knew very well what they were at. The producers of the nineteenth century were not, like ours, working together for the maintenance of the community, but each solely for his own maintenance at the expense of the community. If, in working to this end, he at the same time increased the aggregate wealth, that was merely

incidental. It was just as feasible and as common to increase one's private hoard by practices injurious to the general welfare. One's worst enemies were necessarily those of his own trade, for, under your plan of making private profit the motive of production, a scarcity of the article he produced was what each particular producer desired. It was for his interest that no more of it should be produced than he himself could produce. To secure this consummation as far as circumstances permitted, by killing off and discouraging those engaged in his line of industry, was his constant effort. When he had killed off all he could, his policy was to combine with those he could not kill, and convert their mutual warfare into a warfare upon the public at large by cornering the market, as I believe you used to call it, and putting up prices to the highest point people would stand before going without the goods. The day dream of the nineteenth century producer was to gain absolute control of the supply of some necessity of life, so that he might keep the public at the verge of starvation, and always command famine prices for what he supplied. This, Mr. West, is what was called in the nineteenth century a system of production. I will leave it to you if it does not seem, in some of its aspects, a great deal more like a system for preventing production. Some time when we have plenty of leisure I am going to ask you to sit down with me and try to make me comprehend, as I never yet could, though I have studied the matter a great deal how such shrewd fellows as your contemporaries appear to have been in many respects ever came to entrust the business of providing for the community to a class whose interest it was to starve it. I assure you that the wonder with us is, not that the world did not get rich under such a system, but that it did not perish outright from want. This wonder increases as we go on to consider some of the other prodigious wastes that characterized it.

"Apart from the waste of labor and capital by misdirected industry, and that from the constant bloodletting of your industrial warfare, your system was liable to periodical convulsions, overwhelming alike the wise and unwise, the successful cut-throat as well as his victim. I refer to the business crises at intervals of five to ten years, which wrecked the industries of the nation, prostrating all weak enterprises and crippling the strongest, and were followed by long periods, often of many years, of so-called dull times, during which the capitalists slowly regathered their dissipated strength while the laboring classes

starved and rioted. Then would ensue another brief season of prosperity, followed in turn by another crisis and the ensuing years of exhaustion. As commerce developed, making the nations mutually dependent, these crises became world-wide, while the obstinacy of the ensuing state of collapse increased with the area affected by the convulsions, and the consequent lack of rallying centres. In proportion as the industries of the world multiplied and became complex, and the volume of capital involved was increased, these business cataclysms became more frequent, till, in the latter part of the nineteenth century, there were two years of bad times to one of good, and the system of industry, never before so extended or so imposing, seemed in danger of collapsing by its own weight. After endless discussions, your economists appear by that time to have settled down to the despairing conclusion that there was no more possibility of preventing or controlling these crises than if they had been drouths or hurricanes. It only remained to endure them as necessary evils, and when they had passed over to build up again the shattered structure of industry, as dwellers in an earthquake country keep on rebuilding their cities on the same site.

"So far as considering the causes of the trouble inherent in their industrial system, your contemporaries were certainly correct. They were in its very basis, and must needs become more and more maleficent as the business fabric grew in size and complexity. One of these causes was the lack of any common control of the different industries, and the consequent impossibility of their orderly and coordinate development. It inevitably resulted from this lack that they were continually getting out of step with one another and out of relation with the demand.

"Of the latter there was no criterion such as organized distribution gives us, and the first notice that it had been exceeded in any group of industries was a crash of prices, bankruptcy of producers, stoppage of production, reduction of wages, or discharge of workmen. This process was constantly going on in many industries, even in what were called good times, but a crisis took place only when the industries affected were extensive. The markets then were glutted with goods, of which nobody wanted beyond a sufficiency at any price. The wages and profits of those making the glutted classes of goods being reduced or wholly stopped, their purchasing power as consumers of other classes of goods, of

which there were no natural glut, was taken away, and, as a consequence, goods of which there was no natural glut became artificially glutted, till their prices also were broken down, and their makers thrown out of work and deprived of income. The crisis was by this time fairly under way, and nothing could check it till a nation's ransom had been wasted.

"A cause, also inherent in your system, which often produced and always terribly aggravated crises, was the machinery of money and credit. Money was essential when production was in many private hands, and buying and selling was necessary to secure what one wanted. It was, however, open to the obvious objection of substituting for food, clothing, and other things a merely conventional representative of them. The confusion of mind which this favored, between goods and their representative, led the way to the credit system and its prodigious illusions. Already accustomed to accept money for commodities, the people next accepted promises for money, and ceased to look at all behind the representative for the thing represented. Money was a sign of real commodities, but credit was but the sign of a sign. There was a natural limit to gold and silver, that is, money proper, but none to credit, and the result was that the volume of credit, that is, the promises of money, ceased to bear any ascertainable proportion to the money, still less to the commodities, actually in existence. Under such a system, frequent and periodical crises were necessitated by a law as absolute as that which brings to the ground a structure overhanging its centre of gravity. It was one of your fictions that the government and the banks authorized by it alone issued money; but everybody who gave a dollar's credit issued money to that extent, which was as good as any to swell the circulation till the next crises. The great extension of the credit system was a characteristic of the latter part of the nineteenth century, and accounts largely for the almost incessant business crises which marked that period. Perilous as credit was, you could not dispense with its use, for, lacking any national or other public organization of the capital of the country, it was the only means you had for concentrating and directing it upon industrial enterprises. It was in this way a most potent means for exaggerating the chief peril of the private enterprise system of industry by enabling particular industries to absorb disproportionate amounts of the disposable capital of the country, and thus prepare disaster. Business enterprises were always vastly in debt for advances

of credit, both to one another and to the banks and capitalists, and the prompt withdrawal of this credit at the first sign of a crisis was generally the precipitating cause of it.

"It was the misfortune of your contemporaries that they had to cement their business fabric with a material which an accident might at any moment turn into an explosive. They were in the plight of a man building a house with dynamite for mortar, for credit can be compared with nothing else.

"If you would see how needless were these convulsions of business which I have been speaking of, and how entirely they resulted from leaving industry to private and unorganized management, just consider the working of our system. Overproduction in special lines, which was the great hobgoblin of your day, is impossible now, for by the connection between distribution and production supply is geared to demand like an engine to the governor which regulates its speed. Even suppose by an error of judgment an excessive production of some commodity. The consequent slackening or cessation of production in that line throws nobody out of employment. The suspended workers are at once found occupation in some other department of the vast workshop and lose only the time spent in changing, while, as for the glut, the business of the nation is large enough to carry any amount of product manufactured in excess of demand till the latter overtakes it. In such a case of over-production, as I have supposed, there is not with us, as with you, any complex machinery to get out of order and magnify a thousand times the original mistake. Of course, having not even money, we still less have credit. All estimates deal directly with the real things, the flour, iron, wood, wool, and labor, of which money and credit were for you the very misleading representatives. In our calculation of cost there can be no mistakes. Out of the annual product the amount necessary for the support of the people is taken, and the requisite labor to produce the next year's consumption provided for. The residue of the material and labor represents what can be safely expended in improvements. If the crops are bad, the surplus for that year is less than usual, that is all. Except for slight occasional effects of such natural causes, there are no fluctuations of business; the material prosperity of the nation flows on uninterruptedly from generation to generation, like an ever broadening and deepening river.

"Your business crises, Mr. West," continued the doctor, "like either of the

great wastes I mentioned before, were enough, alone, to have kept your noses to the grindstone forever; but I have still to speak of one other great cause of your poverty, and that was the idleness of a great part of your capital and labor. With us it is the business of the administration to keep in constant employment every ounce of available capital and labor in the country. In your day there was no general control of either capital or labor, and a large part of both failed to find employment. 'Capital,' you used to say, 'is naturally timid,' and it would certainly have been reckless if it had not been timid in an epoch when there was a large preponderance of probability that any particular business venture would end in failure. There was no time when, if security could have been guaranteed it, the amount of capital devoted to productive industry could not have been greatly increased. The proportion of it so employed underwent constant extraordinary fluctuations, according to the greater or less feeling of uncertainty as to the stability of the industrial situation, so that the output of the national industries greatly varied in different years. But for the same reason that the amount of capital employed at times of special insecurity was far less than at times of somewhat greater security, a very large proportion was never employed at all, because the hazard of business was always very great in the best of times.

"It should be also noted that the great amount of capital always seeking employment where tolerable safety could be insured terribly embittered the competition between capitalists when a promising opening presented itself. The idleness of capital, the result of its timidity, of course meant the idleness of labor in corresponding degree. Moreover, every change in the adjustments of business, every slightest alteration in the condition of commerce or manufactures, not to speak of the innumerable business failures that took place yearly, even in the best of times, were constantly throwing a multitude of men out of employment for periods of weeks or months, or even years. A great number of these seekers after employment were constantly traversing the country, becoming in time professional vagabonds, then criminals. 'Give us work!' was the cry of an army of the unemployed at nearly all seasons, and in seasons of dullness in business this army swelled to a host so vast and desperate as to threaten the stability of the government. Could there conceivably be a more conclusive demonstration of the imbecility of the system of private

enterprise as a method for enriching a nation than the fact that, in an age of such general poverty and want of everything, capitalists had to throttle one another to find a safe chance to invest their capital and workmen rioted and burned because they could find no work to do?

"Now, Mr. West," continued Dr. Leete, "I want you to bear in mind that these points of which I have been speaking indicate only negatively the advantages of the national organization of industry by showing certain fatal defects and prodigious imbecilities of the systems of private enterprise which are not found in it. These alone, you must admit, would pretty well explain why the nation is so much richer than in your day. But the larger half of our advantage over you, the positive side of it, I have yet barely spoken of. Supposing the system of private enterprise in industry were without any of the great leaks I have mentioned; that there were no waste on account of misdirected effort growing out of mistakes as to the demand, and inability to command a general view of the industrial field. Suppose, also, there were no neutralizing and duplicating of effort from competition. Suppose, also, there were no waste from business panics and crises through bankruptcy and long interruptions of industry, and also none from the idleness of capital and labor. Supposing these evils, which are essential to the conduct of industry by capital in private hands, could all be miraculously prevented, and the system yet retained; even then the superiority of the results attained by the modern industrial system of national control would remain overwhelming.

"You used to have some pretty large textile manufacturing establishments, even in your day, although not comparable with ours. No doubt you have visited these great mills in your time, covering acres of ground, employing thousands of hands, and combining under one roof, under one control, the hundred distinct processes between, say, the cotton bale and the bale of glossy calicoes. You have admired the vast economy of labor as of mechanical force resulting from the perfect interworking with the rest of every wheel and every hand. No doubt you have reflected how much less the same force of workers employed in that factory would accomplish if they were scattered, each man working independently. Would you think it an exaggeration to say that the utmost product of those workers, working thus apart, however amicable their relations might be, was increased not merely by a percentage, but many fold, when their

efforts were organized under one control? Well now, Mr. West, the organization of the industry of the nation under a single control, so that all its processes interlock, has multiplied the total product over the utmost that could be done under the former system, even leaving out of account the four great wastes mentioned, in the same proportion that the product of those millworkers was increased by cooperation. The effectiveness of the working force of a nation, under the myriad-headed leadership of private capital, even if the leaders were not mutual enemies, as compared with that which it attains under a single head, may be likened to the military efficiency of a mob, or a horde of barbarians with a thousand petty chiefs, as compared with that of a disciplined army under one general—such a fighting machine, for example, as the German army in the time of Von Moltke."

"After what you have told me," I said, "I do not so much wonder that the nation is richer now than then, but that you are not all Croesuses."

"Well," replied Dr. Leete, "we are pretty well off. The rate at which we live is as luxurious as we could wish. The rivalry of ostentation, which in your day led to extravagance in no way conducive to comfort, finds no place, of course, in a society of people absolutely equal in resources, and our ambition stops at the surroundings which minister to the enjoyment of life. We might, indeed, have much larger incomes, individually, if we chose so to use the surplus of our product, but we prefer to expend it upon public works and pleasures in which all share, upon public halls and buildings, art galleries, bridges, statuary, means of transit, and the conveniences of our cities, great musical and theatrical exhibitions, and in providing on a vast scale for the recreations of the people. You have not begun to see how we live yet, Mr. West. At home we have comfort, but the splendor of our life is, on its social side, that which we share with our fellows. When you know more of it you will see where the money goes, as you used to say, and I think you will agree that we do well so to expend it."

"I suppose," observed Dr. Leete, as we strolled homeward from the dining hall, "that no reflection would have cut the men of your wealth-worshiping century more keenly than the suggestion that they did not know how to make money. Nevertheless that is just the verdict history has passed on them. Their system of unorganized and antagonistic industries was as absurd economically as it was morally abominable. Selfishness was their only science, and in

industrial production selfishness is suicide. Competition, which is the instinct of selfishness, is another word for dissipation of energy, while combination is the secret of efficient production; and not till the idea of increasing the individual hoard gives place to the idea of increasing the common stock can industrial combination be realized, and the acquisition of wealth really begin. Even if the principle of share and share alike for all men were not the only humane and rational basis for a society, we should still enforce it as economically expedient, seeing that until the disintegrating influence of self-seeking is suppressed no true concert of industry is possible."

CHAPTER 23

That evening, as I sat with Edith in the music room, listening to some pieces in the programme of that day which had attracted my notice, I took advantage of an interval in the music to say, "I have a question to ask you which I fear is rather indiscreet."

"I am quite sure it is not that," she replied, encouragingly.

"I am in the position of an eavesdropper," I continued, "who, having overheard a little of a matter not intended for him, though seeming to concern him, has the impudence to come to the speaker for the rest."

"An eavesdropper!" she repeated, looking puzzled.

"Yes," I said, "but an excusable one, as I think you will admit."

"This is very mysterious," she replied.

"Yes," said I, "so mysterious that often I have doubted whether I really overheard at all what I am going to ask you about, or only dreamed it. I want you to tell me. The matter is this: When I was coming out of that sleep of a century, the first impression of which I was conscious was of voices talking around me, voices that afterwards I recognized as your father's, your mother's, and your own. First, I remember your father's voice saying, "He is going to open his eyes. He had better see but one person at first." Then you said, if I did not dream it all, "Promise me, then, that you will not tell him." Your father seemed to hesitate about promising, but you insisted, and your mother interposing, he finally promised, and when I opened my eyes I saw only him."

I had been quite serious when I said that I was not sure that I had not dreamed the conversation I fancied I had overheard, so incomprehensible was it that these people should know anything of me, a contemporary of their great-grandparents, which I did not know myself. But when I saw the effect of my words upon Edith, I knew that it was no dream, but another mystery, and a more puzzling one than any I had before encountered. For from the moment that the drift of my question became apparent, she showed indications of the most acute embarrassment. Her eyes, always so frank and direct in expression, had dropped in a panic before mine, while her face crimsoned from neck to forehead.

"Pardon me," I said, as soon as I had recovered from bewilderment at the

extraordinary effect of my words. “It seems, then, that I was not dreaming. There is some secret, something about me, which you are withholding from me. Really, doesn’t it seem a little hard that a person in my position should not be given all the information possible concerning himself?”

“It does not concern you—that is, not directly. It is not about you exactly,” she replied, scarcely audibly.

“But it concerns me in some way,” I persisted. “It must be something that would interest me.”

“I don’t know even that,” she replied, venturing a momentary glance at my face, furiously blushing, and yet with a quaint smile flickering about her lips which betrayed a certain perception of humor in the situation despite its embarrassment,—"I am not sure that it would even interest you.”

“Your father would have told me,” I insisted, with an accent of reproach. “It was you who forbade him. He thought I ought to know.”

She did not reply. She was so entirely charming in her confusion that I was now prompted, as much by the desire to prolong the situation as by my original curiosity, to importune her further.

“Am I never to know? Will you never tell me?” I said.

“It depends,” she answered, after a long pause.

“On what?” I persisted.

“Ah, you ask too much,” she replied. Then, raising to mine a face which inscrutable eyes, flushed cheeks, and smiling lips combined to render perfectly bewitching, she added, “What should you think if I said that it depended on—yourself?”

“On myself?” I echoed. “How can that possibly be?”

“Mr. West, we are losing some charming music,” was her only reply to this, and turning to the telephone, at a touch of her finger she set the air to swaying to the rhythm of an adagio. After that she took good care that the music should leave no opportunity for conversation. She kept her face averted from me, and pretended to be absorbed in the airs, but that it was a mere pretense the crimson tide standing at flood in her cheeks sufficiently betrayed.

When at length she suggested that I might have heard all I cared to, for that time, and we rose to leave the room, she came straight up to me and said, without raising her eyes, “Mr. West, you say I have been good to you. I have not

been particularly so, but if you think I have, I want you to promise me that you will not try again to make me tell you this thing you have asked to-night, and that you will not try to find it out from any one else,—my father or mother, for instance."

To such an appeal there was but one reply possible. "Forgive me for distressing you. Of course I will promise," I said. "I would never have asked you if I had fancied it could distress you. But do you blame me for being curious?"

"I do not blame you at all."

"And some time," I added, "if I do not tease you, you may tell me of your own accord. May I not hope so?"

"Perhaps," she murmured.

"Only perhaps?"

Looking up, she read my face with a quick, deep glance. "Yes," she said, "I think I may tell you—some time": and so our conversation ended, for she gave me no chance to say anything more.

That night I don't think even Dr. Pillsbury could have put me to sleep, till toward morning at least. Mysteries had been my accustomed food for days now, but none had before confronted me at once so mysterious and so fascinating as this, the solution of which Edith Leete had forbidden me even to seek. It was a double mystery. How, in the first place, was it conceivable that she should know any secret about me, a stranger from a strange age? In the second place, even if she should know such a secret, how account for the agitating effect which the knowledge of it seemed to have upon her? There are puzzles so difficult that one cannot even get so far as a conjecture as to the solution, and this seemed one of them. I am usually of too practical a turn to waste time on such conundrums; but the difficulty of a riddle embodied in a beautiful young girl does not detract from its fascination. In general, no doubt, maidens' blushes may be safely assumed to tell the same tale to young men in all ages and races, but to give that interpretation to Edith's crimson cheeks would, considering my position and the length of time I had known her, and still more the fact that this mystery dated from before I had known her at all, be a piece of utter fatuity. And yet she was an angel, and I should not have been a young man if reason and common sense had been able quite to banish a roseate tinge from my dreams that night.

CHAPTER 24

In the morning I went down stairs early in the hope of seeing Edith alone. In this, however, I was disappointed. Not finding her in the house, I sought her in the garden, but she was not there. In the course of my wanderings I visited the underground chamber, and sat down there to rest. Upon the reading table in the chamber several periodicals and newspapers lay, and thinking that Dr. Leete might be interested in glancing over a Boston daily of 1887, I brought one of the papers with me into the house when I came.

At breakfast I met Edith. She blushed as she greeted me, but was perfectly self-possessed. As we sat at table, Dr. Leete amused himself with looking over the paper I had brought in. There was in it, as in all the newspapers of that date, a great deal about the labor troubles, strikes, lockouts, boycotts, the programmes of labor parties, and the wild threats of the anarchists.

"By the way," said I, as the doctor read aloud to us some of these items, "what part did the followers of the red flag take in the establishment of the new order of things? They were making considerable noise the last thing that I knew."

"They had nothing to do with it except to hinder it, of course," replied Dr. Leete. "They did that very effectually while they lasted, for their talk so disgusted people as to deprive the best considered projects for social reform of a hearing. The subsidizing of those fellows was one of the shrewdest moves of the opponents of reform."

"Subsidizing them!" I exclaimed in astonishment.

"Certainly," replied Dr. Leete. "No historical authority nowadays doubts that they were paid by the great monopolies to wave the red flag and talk about burning, sacking, and blowing people up, in order, by alarming the timid, to head off any real reforms. What astonishes me most is that you should have fallen into the trap so unsuspectingly."

"What are your grounds for believing that the red flag party was subsidized?" I inquired.

"Why simply because they must have seen that their course made a thousand enemies of their professed cause to one friend. Not to suppose that they were hired for the work is to credit them with an inconceivable folly.[1] In

the United States, of all countries, no party could intelligently expect to carry its point without first winning over to its ideas a majority of the nation, as the national party eventually did."

"The national party!" I exclaimed. "That must have arisen after my day. I suppose it was one of the labor parties."

"Oh no!" replied the doctor. "The labor parties, as such, never could have accomplished anything on a large or permanent scale. For purposes of national scope, their basis as merely class organizations was too narrow. It was not till a rearrangement of the industrial and social system on a higher ethical basis, and for the more efficient production of wealth, was recognized as the interest, not of one class, but equally of all classes, of rich and poor, cultured and ignorant, old and young, weak and strong, men and women, that there was any prospect that it would be achieved. Then the national party arose to carry it out by political methods. It probably took that name because its aim was to nationalize the functions of production and distribution. Indeed, it could not well have had any other name, for its purpose was to realize the idea of the nation with a grandeur and completeness never before conceived, not as an association of men for certain merely political functions affecting their happiness only remotely and superficially, but as a family, a vital union, a common life, a mighty heaven-touching tree whose leaves are its people, fed from its veins, and feeding it in turn. The most patriotic of all possible parties, it sought to justify patriotism and raise it from an instinct to a rational devotion, by making the native land truly a father land, a father who kept the people alive and was not merely an idol for which they were expected to die."

[1] I fully admit the difficulty of accounting for the course of the anarchists on any other theory than that they were subsidized by the capitalists, but at the same time, there is no doubt that the theory is wholly erroneous. It certainly was not held at the time by any one, though it may seem so obvious in the retrospect.

CHAPTER 25

The personality of Edith Leete had naturally impressed me strongly ever since I had come, in so strange a manner, to be an inmate of her father's house, and it was to be expected that after what had happened the night previous, I should be more than ever preoccupied with thoughts of her. From the first I had been struck with the air of serene frankness and ingenuous directness, more like that of a noble and innocent boy than any girl I had ever known, which characterized her. I was curious to know how far this charming quality might be peculiar to herself, and how far possibly a result of alterations in the social position of women which might have taken place since my time. Finding an opportunity that day, when alone with Dr. Leete, I turned the conversation in that direction.

"I suppose," I said, "that women nowadays, having been relieved of the burden of housework, have no employment but the cultivation of their charms and graces."

"So far as we men are concerned," replied Dr. Leete, "we should consider that they amply paid their way, to use one of your forms of expression, if they confined themselves to that occupation, but you may be very sure that they have quite too much spirit to consent to be mere beneficiaries of society, even as a return for ornamenting it. They did, indeed, welcome their riddance from housework, because that was not only exceptionally wearing in itself, but also wasteful, in the extreme, of energy, as compared with the cooperative plan; but they accepted relief from that sort of work only that they might contribute in other and more effectual, as well as more agreeable, ways to the common weal. Our women, as well as our men, are members of the industrial army, and leave it only when maternal duties claim them. The result is that most women, at one time or another of their lives, serve industrially some five or ten or fifteen years, while those who have no children fill out the full term."

"A woman does not, then, necessarily leave the industrial service on marriage?" I queried.

"No more than a man," replied the doctor. "Why on earth should she? Married women have no housekeeping responsibilities now, you know, and a husband is not a baby that he should be cared for."

"It was thought one of the most grievous features of our civilization that we required so much toil from women," I said; "but it seems to me you get more out of them than we did."

Dr. Leete laughed. "Indeed we do, just as we do out of our men. Yet the women of this age are very happy, and those of the nineteenth century, unless contemporary references greatly mislead us, were very miserable. The reason that women nowadays are so much more efficient colaborers with the men, and at the same time are so happy, is that, in regard to their work as well as men's, we follow the principle of providing every one the kind of occupation he or she is best adapted to. Women being inferior in strength to men, and further disqualified industrially in special ways, the kinds of occupation reserved for them, and the conditions under which they pursue them, have reference to these facts. The heavier sorts of work are everywhere reserved for men, the lighter occupations for women. Under no circumstances is a woman permitted to follow any employment not perfectly adapted, both as to kind and degree of labor, to her sex. Moreover, the hours of women's work are considerably shorter than those of men's, more frequent vacations are granted, and the most careful provision is made for rest when needed. The men of this day so well appreciate that they owe to the beauty and grace of women the chief zest of their lives and their main incentive to effort, that they permit them to work at all only because it is fully understood that a certain regular requirement of labor, of a sort adapted to their powers, is well for body and mind, during the period of maximum physical vigor. We believe that the magnificent health which distinguishes our women from those of your day, who seem to have been so generally sickly, is owing largely to the fact that all alike are furnished with healthful and inspiriting occupation."

"I understood you," I said, "that the women-workers belong to the army of industry, but how can they be under the same system of ranking and discipline with the men, when the conditions of their labor are so different?"

"They are under an entirely different discipline," replied Dr. Leete, "and constitute rather an allied force than an integral part of the army of the men. They have a woman general-in-chief and are under exclusively feminine regime. This general, as also the higher officers, is chosen by the body of women who have passed the time of service, in correspondence with the manner

in which the chiefs of the masculine army and the President of the nation are elected. The general of the women's army sits in the cabinet of the President and has a veto on measures respecting women's work, pending appeals to Congress. I should have said, in speaking of the judiciary, that we have women on the bench, appointed by the general of the women, as well as men. Causes in which both parties are women are determined by women judges, and where a man and a woman are parties to a case, a judge of either sex must consent to the verdict."

"Womanhood seems to be organized as a sort of imperium in imperio in your system," I said.

"To some extent," Dr. Leete replied; "but the inner imperium is one from which you will admit there is not likely to be much danger to the nation. The lack of some such recognition of the distinct individuality of the sexes was one of the innumerable defects of your society. The passional attraction between men and women has too often prevented a perception of the profound differences which make the members of each sex in many things strange to the other, and capable of sympathy only with their own. It is in giving full play to the differences of sex rather than in seeking to obliterate them, as was apparently the effort of some reformers in your day, that the enjoyment of each by itself and the piquancy which each has for the other, are alike enhanced. In your day there was no career for women except in an unnatural rivalry with men. We have given them a world of their own, with its emulations, ambitions, and careers, and I assure you they are very happy in it. It seems to us that women were more than any other class the victims of your civilization. There is something which, even at this distance of time, penetrates one with pathos in the spectacle of their ennuied, undeveloped lives, stunted at marriage, their narrow horizon, bounded so often, physically, by the four walls of home, and morally by a petty circle of personal interests. I speak now, not of the poorer classes, who were generally worked to death, but also of the well-to-do and rich. From the great sorrows, as well as the petty frets of life, they had no refuge in the breezy outdoor world of human affairs, nor any interests save those of the family. Such an existence would have softened men's brains or driven them mad. All that is changed to-day. No woman is heard nowadays wishing she were a man, nor parents desiring boy rather than girl children. Our girls are as full of

ambition for their careers as our boys. Marriage, when it comes, does not mean incarceration for them, nor does it separate them in any way from the larger interests of society, the bustling life of the world. Only when maternity fills a woman's mind with new interests does she withdraw from the world for a time. Afterward, and at any time, she may return to her place among her comrades, nor need she ever lose touch with them. Women are a very happy race nowadays, as compared with what they ever were before in the world's history, and their power of giving happiness to men has been of course increased in proportion."

"I should imagine it possible," I said, "that the interest which girls take in their careers as members of the industrial army and candidates for its distinctions might have an effect to deter them from marriage."

Dr. Leete smiled. "Have no anxiety on that score, Mr. West," he replied. "The Creator took very good care that whatever other modifications the dispositions of men and women might with time take on, their attraction for each other should remain constant. The mere fact that in an age like yours, when the struggle for existence must have left people little time for other thoughts, and the future was so uncertain that to assume parental responsibilities must have often seemed like a criminal risk, there was even then marrying and giving in marriage, should be conclusive on this point. As for love nowadays, one of our authors says that the vacuum left in the minds of men and women by the absence of care for one's livelihood has been entirely taken up by the tender passion. That, however, I beg you to believe, is something of an exaggestion. For the rest, so far is marriage from being an interference with a woman's career, that the higher positions in the feminine army of industry are intrusted only to women who have been both wives and mothers, as they alone fully represent their sex."

"Are credit cards issued to the women just as to the men?"

"Certainly."

"The credits of the women, I suppose, are for smaller sums, owing to the frequent suspension of their labor on account of family responsibilities."

"Smaller!" exclaimed Dr. Leete, "oh, no! The maintenance of all our people is the same. There are no exceptions to that rule, but if any difference were made on account of the interruptions you speak of, it would be by making the

woman's credit larger, not smaller. Can you think of any service constituting a stronger claim on the nation's gratitude than bearing and nursing the nation's children? According to our view, none deserve so well of the world as good parents. There is no task so unselfish, so necessarily without return, though the heart is well rewarded, as the nurture of the children who are to make the world for one another when we are gone."

"It would seem to follow, from what you have said, that wives are in no way dependent on their husbands for maintenance."

"Of course they are not," replied Dr. Leete, "nor children on their parents either, that is, for means of support, though of course they are for the offices of affection. The child's labor, when he grows up, will go to increase the common stock, not his parents', who will be dead, and therefore he is properly nurtured out of the common stock. The account of every person, man, woman, and child, you must understand, is always with the nation directly, and never through any intermediary, except, of course, that parents, to a certain extent, act for children as their guardians. You see that it is by virtue of the relation of individuals to the nation, of their membership in it, that they are entitled to support; and this title is in no way connected with or affected by their relations to other individuals who are fellow members of the nation with them. That any person should be dependent for the means of support upon another would be shocking to the moral sense as well as indefensible on any rational social theory. What would become of personal liberty and dignity under such an arrangement? I am aware that you called yourselves free in the nineteenth century. The meaning of the word could not then, however, have been at all what it is at present, or you certainly would not have applied it to a society of which nearly every member was in a position of galling personal dependence upon others as to the very means of life, the poor upon the rich, or employed upon employer, women upon men, children upon parents. Instead of distributing the product of the nation directly to its members, which would seem the most natural and obvious method, it would actually appear that you had given your minds to devising a plan of hand to hand distribution, involving the maximum of personal humiliation to all classes of recipients.

"As regards the dependence of women upon men for support, which then was usual, of course, natural attraction in case of marriages of love may often

have made it endurable, though for spirited women I should fancy it must always have remained humiliating. What, then, must it have been in the innumerable cases where women, with or without the form of marriage, had to sell themselves to men to get their living? Even your contemporaries, callous as they were to most of the revolting aspects of their society, seem to have had an idea that this was not quite as it should be; but, it was still only for pity's sake that they deplored the lot of the women. It did not occur to them that it was robbery as well as cruelty when men seized for themselves the whole product of the world and left women to beg and wheedle for their share. Why—but bless me, Mr. West, I am really running on at a remarkable rate, just as if the robbery, the sorrow, and the shame which those poor women endured were not over a century since, or as if you were responsible for what you no doubt deplored as much as I do."

"I must bear my share of responsibility for the world as it then was," I replied. "All I can say in extenuation is that until the nation was ripe for the present system of organized production and distribution, no radical improvement in the position of woman was possible. The root of her disability, as you say, was her personal dependence upon man for her livelihood, and I can imagine no other mode of social organization than that you have adopted, which would have set woman free of man at the same time that it set men free of one another. I suppose, by the way, that so entire a change in the position of women cannot have taken place without affecting in marked ways the social relations of the sexes. That will be a very interesting study for me."

"The change you will observe," said Dr. Leete, "will chiefly be, I think, the entire frankness and unconstraint which now characterizes those relations, as compared with the artificiality which seems to have marked them in your time. The sexes now meet with the ease of perfect equals, suitors to each other for nothing but love. In your time the fact that women were dependent for support on men made the woman in reality the one chiefly benefited by marriage. This fact, so far as we can judge from contemporary records, appears to have been coarsely enough recognized among the lower classes, while among the more polished it was glossed over by a system of elaborate conventionalities which aimed to carry the precisely opposite meaning, namely, that the man was the party chiefly benefited. To keep up this convention it was essential that he

should always seem the suitor. Nothing was therefore considered more shocking to the proprieties than that a woman should betray a fondness for a man before he had indicated a desire to marry her. Why, we actually have in our libraries books, by authors of your day, written for no other purpose than to discuss the question whether, under any conceivable circumstances, a woman might, without discredit to her sex, reveal an unsolicited love. All this seems exquisitely absurd to us, and yet we know that, given your circumstances, the problem might have a serious side. When for a woman to proffer her love to a man was in effect to invite him to assume the burden of her support, it is easy to see that pride and delicacy might well have checked the promptings of the heart. When you go out into our society, Mr. West, you must be prepared to be often cross-questioned on this point by our young people, who are naturally much interested in this aspect of old-fashioned manners."[1]

"And so the girls of the twentieth century tell their love."

"If they choose," replied Dr. Leete. "There is no more pretense of a concealment of feeling on their part than on the part of their lovers. Coquetry would be as much despised in a girl as in a man. Affected coldness, which in your day rarely deceived a lover, would deceive him wholly now, for no one thinks of practicing it."

"One result which must follow from the independence of women I can see for myself," I said. "There can be no marriages now except those of inclination."

"That is a matter of course," replied Dr. Leete.

"Think of a world in which there are nothing but matches of pure love! Ah me, Dr. Leete, how far you are from being able to understand what an astonishing phenomenon such a world seems to a man of the nineteenth century!"

"I can, however, to some extent, imagine it," replied the doctor. "But the fact you celebrate, that there are nothing but love matches, means even more, perhaps, than you probably at first realize. It means that for the first time in human history the principle of sexual selection, with its tendency to preserve and transmit the better types of the race, and let the inferior types drop out, has unhindered operation. The necessities of poverty, the need of having a home, no longer tempt women to accept as the fathers of their children men whom they neither can love nor respect. Wealth and rank no longer divert attention from

personal qualities. Gold no longer 'gilds the straitened forehead of the fool.' The gifts of person, mind, and disposition; beauty, wit, eloquence, kindness, generosity, geniality, courage, are sure of transmission to posterity. Every generation is sifted through a little finer mesh than the last. The attributes that human nature admires are preserved, those that repel it are left behind. There are, of course, a great many women who with love must mingle admiration, and seek to wed greatly, but these not the less obey the same law, for to wed greatly now is not to marry men of fortune or title, but those who have risen above their fellows by the solidity or brilliance of their services to humanity. These form nowadays the only aristocracy with which alliance is distinction.

"You were speaking, a day or two ago, of the physical superiority of our people to your contemporaries. Perhaps more important than any of the causes I mentioned then as tending to race purification has been the effect of untrammeled sexual selection upon the quality of two or three successive generations. I believe that when you have made a fuller study of our people you will find in them not only a physical, but a mental and moral improvement. It would be strange if it were not so, for not only is one of the great laws of nature now freely working out the salvation of the race, but a profound moral sentiment has come to its support. Individualism, which in your day was the animating idea of society, not only was fatal to any vital sentiment of brotherhood and common interest among living men, but equally to any realization of the responsibility of the living for the generation to follow. To-day this sense of responsibility, practically unrecognized in all previous ages, has become one of the great ethical ideas of the race, reinforcing, with an intense conviction of duty, the natural impulse to seek in marriage the best and noblest of the other sex. The result is, that not all the encouragements and incentives of every sort which we have provided to develop industry, talent, genius, excellence of whatever kind, are comparable in their effect on our young men with the fact that our women sit aloft as judges of the race and reserve themselves to reward the winners. Of all the whips, and spurs, and baits, and prizes, there is none like the thought of the radiant faces which the laggards will find averted.

"Celibates nowadays are almost invariably men who have failed to acquit themselves creditably in the work of life. The woman must be a courageous one, with a very evil sort of courage, too, whom pity for one of these unfortunates

should lead to defy the opinion of her generation—for otherwise she is free—so far as to accept him for a husband. I should add that, more exacting and difficult to resist than any other element in that opinion, she would find the sentiment of her own sex. Our women have risen to the full height of their responsibility as the wardens of the world to come, to whose keeping the keys of the future are confided. Their feeling of duty in this respect amounts to a sense of religious consecration. It is a cult in which they educate their daughters from childhood."

After going to my room that night, I sat up late to read a romance of Berrian, handed me by Dr. Leete, the plot of which turned on a situation suggested by his last words, concerning the modern view of parental responsibility. A similar situation would almost certainly have been treated by a nineteenth century romancist so as to excite the morbid sympathy of the reader with the sentimental selfishness of the lovers, and his resentment toward the unwritten law which they outraged. I need not describe—for who has not read "Ruth Elton"?—how different is the course which Berrian takes, and with what tremendous effect he enforces the principle which he states: "Over the unborn our power is that of God, and our responsibility like His toward us. As we acquit ourselves toward them, so let Him deal with us."

[1] I may say that Dr. Leete's warning has been fully justified by my experience. The amount and intensity of amusement which the young people of this day, and the young women especially, are able to extract from what they are pleased to call the oddities of courtship in the nineteenth century, appear unlimited.

CHAPTER 26

I think if a person were ever excusable for losing track of the days of the week, the circumstances excused me. Indeed, if I had been told that the method of reckoning time had been wholly changed and the days were now counted in lots of five, ten, or fifteen instead of seven, I should have been in no way surprised after what I had already heard and seen of the twentieth century. The first time that any inquiry as to the days of the week occurred to me was the morning following the conversation related in the last chapter. At the breakfast table Dr. Leete asked me if I would care to hear a sermon.

"Is it Sunday, then?" I exclaimed.

"Yes," he replied. "It was on Friday, you see, when we made the lucky discovery of the buried chamber to which we owe your society this morning. It was on Saturday morning, soon after midnight, that you first awoke, and Sunday afternoon when you awoke the second time with faculties fully regained."

"So you still have Sundays and sermons," I said. "We had prophets who foretold that long before this time the world would have dispensed with both. I am very curious to know how the ecclesiastical systems fit in with the rest of your social arrangements. I suppose you have a sort of national church with official clergymen."

Dr. Leete laughed, and Mrs. Leete and Edith seemed greatly amused.

"Why, Mr. West," Edith said, "what odd people you must think us. You were quite done with national religious establishments in the nineteenth century, and did you fancy we had gone back to them?"

"But how can voluntary churches and an unofficial clerical profession be reconciled with national ownership of all buildings, and the industrial service required of all men?" I answered.

"The religious practices of the people have naturally changed considerably in a century," replied Dr. Leete; "but supposing them to have remained unchanged, our social system would accommodate them perfectly. The nation supplies any person or number of persons with buildings on guarantee of the rent, and they remain tenants while they pay it. As for the clergymen, if a number of persons wish the services of an individual for any particular end of their own, apart from the general service of the nation, they can always secure

it, with that individual's own consent, of course, just as we secure the service of our editors, by contributing from their credit cards an indemnity to the nation for the loss of his services in general industry. This indemnity paid the nation for the individual answers to the salary in your day paid to the individual himself; and the various applications of this principle leave private initiative full play in all details to which national control is not applicable. Now, as to hearing a sermon to-day, if you wish to do so, you can either go to a church to hear it or stay at home."

"How am I to hear it if I stay at home?"

"Simply by accompanying us to the music room at the proper hour and selecting an easy chair. There are some who still prefer to hear sermons in church, but most of our preaching, like our musical performances, is not in public, but delivered in acoustically prepared chambers, connected by wire with subscribers' houses. If you prefer to go to a church I shall be glad to accompany you, but I really don't believe you are likely to hear anywhere a better discourse than you will at home. I see by the paper that Mr. Barton is to preach this morning, and he preaches only by telephone, and to audiences often reaching 150,000."

"The novelty of the experience of hearing a sermon under such circumstances would incline me to be one of Mr. Barton's hearers, if for no other reason," I said.

An hour or two later, as I sat reading in the library, Edith came for me, and I followed her to the music room, where Dr. and Mrs. Leete were waiting. We had not more than seated ourselves comfortably when the tinkle of a bell was heard, and a few moments after the voice of a man, at the pitch of ordinary conversation, addressed us, with an effect of proceeding from an invisible person in the room. This was what the voice said:

MR. BARTON'S SERMON

"We have had among us, during the past week, a critic from the nineteenth century, a living representative of the epoch of our great-grandparents. It would be strange if a fact so extraordinary had not somewhat strongly affected our imaginations. Perhaps most of us have been stimulated to some effort to realize the society of a century ago, and figure to ourselves what it must have been like to live then. In inviting you now to consider certain reflections upon this subject

which have occurred to me, I presume that I shall rather follow than divert the course of your own thoughts."

Edith whispered something to her father at this point, to which he nodded assent and turned to me.

"Mr. West," he said, "Edith suggests that you may find it slightly embarrassing to listen to a discourse on the lines Mr. Barton is laying down, and if so, you need not be cheated out of a sermon. She will connect us with Mr. Sweetser's speaking room if you say so, and I can still promise you a very good discourse."

"No, no," I said. "Believe me, I would much rather hear what Mr. Barton has to say."

"As you please," replied my host.

When her father spoke to me Edith had touched a screw, and the voice of Mr. Barton had ceased abruptly. Now at another touch the room was once more filled with the earnest sympathetic tones which had already impressed me most favorably.

"I venture to assume that one effect has been common with us as a result of this effort at retrospection, and that it has been to leave us more than ever amazed at the stupendous change which one brief century has made in the material and moral conditions of humanity.

"Still, as regards the contrast between the poverty of the nation and the world in the nineteenth century and their wealth now, it is not greater, possibly, than had been before seen in human history, perhaps not greater, for example, than that between the poverty of this country during the earliest colonial period of the seventeenth century and the relatively great wealth it had attained at the close of the nineteenth, or between the England of William the Conqueror and that of Victoria. Although the aggregate riches of a nation did not then, as now, afford any accurate criterion of the masses of its people, yet instances like these afford partial parallels for the merely material side of the contrast between the nineteenth and the twentieth centuries. It is when we contemplate the moral aspect of that contrast that we find ourselves in the presence of a phenomenon for which history offers no precedent, however far back we may cast our eye. One might almost be excused who should exclaim, 'Here, surely, is something like a miracle!' Nevertheless, when we give over idle wonder, and begin to

examine the seeming prodigy critically, we find it no prodigy at all, much less a miracle. It is not necessary to suppose a moral new birth of humanity, or a wholesale destruction of the wicked and survival of the good, to account for the fact before us. It finds its simple and obvious explanation in the reaction of a changed environment upon human nature. It means merely that a form of society which was founded on the pseudo self-interest of selfishness, and appealed solely to the anti-social and brutal side of human nature, has been replaced by institutions based on the true self-interest of a rational unselfishness, and appealing to the social and generous instincts of men.

"My friends, if you would see men again the beasts of prey they seemed in the nineteenth century, all you have to do is to restore the old social and industrial system, which taught them to view their natural prey in their fellow-men, and find their gain in the loss of others. No doubt it seems to you that no necessity, however dire, would have tempted you to subsist on what superior skill or strength enabled you to wrest from others equally needy. But suppose it were not merely your own life that you were responsible for. I know well that there must have been many a man among our ancestors who, if it had been merely a question of his own life, would sooner have given it up than nourished it by bread snatched from others. But this he was not permitted to do. He had dear lives dependent on him. Men loved women in those days, as now. God knows how they dared be fathers, but they had babies as sweet, no doubt, to them as ours to us, whom they must feed, clothe, educate. The gentlest creatures are fierce when they have young to provide for, and in that wolfish society the struggle for bread borrowed a peculiar desperation from the tenderest sentiments. For the sake of those dependent on him, a man might not choose, but must plunge into the foul fight—cheat, overreach, supplant, defraud, buy below worth and sell above, break down the business by which his neighbor fed his young ones, tempt men to buy what they ought not and to sell what they should not, grind his laborers, sweat his debtors, cozen his creditors. Though a man sought it carefully with tears, it was hard to find a way in which he could earn a living and provide for his family except by pressing in before some weaker rival and taking the food from his mouth. Even the ministers of religion were not exempt from this cruel necessity. While they warned their flocks against the love of money, regard for their families compelled them to

keep an outlook for the pecuniary prizes of their calling. Poor fellows, theirs was indeed a trying business, preaching to men a generosity and unselfishness which they and everybody knew would, in the existing state of the world, reduce to poverty those who should practice them, laying down laws of conduct which the law of self-preservation compelled men to break. Looking on the inhuman spectacle of society, these worthy men bitterly bemoaned the depravity of human nature; as if angelic nature would not have been debauched in such a devil's school! Ah, my friends, believe me, it is not now in this happy age that humanity is proving the divinity within it. It was rather in those evil days when not even the fight for life with one another, the struggle for mere existence, in which mercy was folly, could wholly banish generosity and kindness from the earth.

"It is not hard to understand the desperation with which men and women, who under other conditions would have been full of gentleness and truth, fought and tore each other in the scramble for gold, when we realize what it meant to miss it, what poverty was in that day. For the body it was hunger and thirst, torment by heat and frost, in sickness neglect, in health unremitting toil; for the moral nature it meant oppression, contempt, and the patient endurance of indignity, brutish associations from infancy, the loss of all the innocence of childhood, the grace of womanhood, the dignity of manhood; for the mind it meant the death of ignorance, the torpor of all those faculties which distinguish us from brutes, the reduction of life to a round of bodily functions.

"Ah, my friends, if such a fate as this were offered you and your children as the only alternative of success in the accumulation of wealth, how long do you fancy would you be in sinking to the moral level of your ancestors?

"Some two or three centuries ago an act of barbarity was committed in India, which, though the number of lives destroyed was but a few score, was attended by such peculiar horrors that its memory is likely to be perpetual. A number of English prisoners were shut up in a room containing not enough air to supply one-tenth their number. The unfortunates were gallant men, devoted comrades in service, but, as the agonies of suffocation began to take hold on them, they forgot all else, and became involved in a hideous struggle, each one for himself, and against all others, to force a way to one of the small apertures of the prison at which alone it was possible to get a breath of air. It was a struggle

in which men became beasts, and the recital of its horrors by the few survivors so shocked our forefathers that for a century later we find it a stock reference in their literature as a typical illustration of the extreme possibilities of human misery, as shocking in its moral as its physical aspect. They could scarcely have anticipated that to us the Black Hole of Calcutta, with its press of maddened men tearing and trampling one another in the struggle to win a place at the breathing holes, would seem a striking type of the society of their age. It lacked something of being a complete type, however, for in the Calcutta Black Hole there were no tender women, no little children and old men and women, no cripples. They were at least all men, strong to bear, who suffered.

"When we reflect that the ancient order of which I have been speaking was prevalent up to the end of the nineteenth century, while to us the new order which succeeded it already seems antique, even our parents having known no other, we cannot fail to be astounded at the suddenness with which a transition so profound beyond all previous experience of the race must have been effected. Some observation of the state of men's minds during the last quarter of the nineteenth century will, however, in great measure, dissipate this astonishment. Though general intelligence in the modern sense could not be said to exist in any community at that time, yet, as compared with previous generations, the one then on the stage was intelligent. The inevitable consequence of even this comparative degree of intelligence had been a perception of the evils of society, such as had never before been general. It is quite true that these evils had been even worse, much worse, in previous ages. It was the increased intelligence of the masses which made the difference, as the dawn reveals the squalor of surroundings which in the darkness may have seemed tolerable. The key-note of the literature of the period was one of compassion for the poor and unfortunate, and indignant outcry against the failure of the social machinery to ameliorate the miseries of men. It is plain from these outbursts that the moral hideousness of the spectacle about them was, at least by flashes, fully realized by the best of the men of that time, and that the lives of some of the more sensitive and generous hearted of them were rendered well nigh unendurable by the intensity of their sympathies.

"Although the idea of the vital unity of the family of mankind, the reality of human brotherhood, was very far from being apprehended by them as the moral

axiom it seems to us, yet it is a mistake to suppose that there was no feeling at all corresponding to it. I could read you passages of great beauty from some of their writers which show that the conception was clearly attained by a few, and no doubt vaguely by many more. Moreover, it must not be forgotten that the nineteenth century was in name Christian, and the fact that the entire commercial and industrial frame of society was the embodiment of the anti-Christian spirit must have had some weight, though I admit it was strangely little, with the nominal followers of Jesus Christ.

"When we inquire why it did not have more, why, in general, long after a vast majority of men had agreed as to the crying abuses of the existing social arrangement, they still tolerated it, or contented themselves with talking of petty reforms in it, we come upon an extraordinary fact. It was the sincere belief of even the best of men at that epoch that the only stable elements in human nature, on which a social system could be safely founded, were its worst propensities. They had been taught and believed that greed and self-seeking were all that held mankind together, and that all human associations would fall to pieces if anything were done to blunt the edge of these motives or curb their operation. In a word, they believed—even those who longed to believe otherwise—the exact reverse of what seems to us self-evident; they believed, that is, that the anti-social qualities of men, and not their social qualities, were what furnished the cohesive force of society. It seemed reasonable to them that men lived together solely for the purpose of overreaching and oppressing one another, and of being overreached and oppressed, and that while a society that gave full scope to these propensities could stand, there would be little chance for one based on the idea of cooperation for the benefit of all. It seems absurd to expect any one to believe that convictions like these were ever seriously entertained by men; but that they were not only entertained by our great-grandfathers, but were responsible for the long delay in doing away with the ancient order, after a conviction of its intolerable abuses had become general, is as well established as any fact in history can be. Just here you will find the explanation of the profound pessimism of the literature of the last quarter of the nineteenth century, the note of melancholy in its poetry, and the cynicism of its humor.

"Feeling that the condition of the race was unendurable, they had no clear

hope of anything better. They believed that the evolution of humanity had resulted in leading it into a cul de sac, and that there was no way of getting forward. The frame of men's minds at this time is strikingly illustrated by treatises which have come down to us, and may even now be consulted in our libraries by the curious, in which laborious arguments are pursued to prove that despite the evil plight of men, life was still, by some slight preponderance of considerations, probably better worth living than leaving. Despising themselves, they despised their Creator. There was a general decay of religious belief. Pale and watery gleams, from skies thickly veiled by doubt and dread, alone lighted up the chaos of earth. That men should doubt Him whose breath is in their nostrils, or dread the hands that moulded them, seems to us indeed a pitiable insanity; but we must remember that children who are brave by day have sometimes foolish fears at night. The dawn has come since then. It is very easy to believe in the fatherhood of God in the twentieth century.

"Briefly, as must needs be in a discourse of this character, I have adverted to some of the causes which had prepared men's minds for the change from the old to the new order, as well as some causes of the conservatism of despair which for a while held it back after the time was ripe. To wonder at the rapidity with which the change was completed after its possibility was first entertained is to forget the intoxicating effect of hope upon minds long accustomed to despair. The sunburst, after so long and dark a night, must needs have had a dazzling effect. From the moment men allowed themselves to believe that humanity after all had not been meant for a dwarf, that its squat stature was not the measure of its possible growth, but that it stood upon the verge of an avatar of limitless development, the reaction must needs have been overwhelming. It is evident that nothing was able to stand against the enthusiasm which the new faith inspired.

"Here, at last, men must have felt, was a cause compared with which the grandest of historic causes had been trivial. It was doubtless because it could have commanded millions of martyrs, that none were needed. The change of a dynasty in a petty kingdom of the old world often cost more lives than did the revolution which set the feet of the human race at last in the right way.

"Doubtless it ill beseems one to whom the boon of life in our resplendent age has been vouchsafed to wish his destiny other, and yet I have often thought

that I would fain exchange my share in this serene and golden day for a place in that stormy epoch of transition, when heroes burst the barred gate of the future and revealed to the kindling gaze of a hopeless race, in place of the blank wall that had closed its path, a vista of progress whose end, for very excess of light, still dazzles us. Ah, my friends! who will say that to have lived then, when the weakest influence was a lever to whose touch the centuries trembled, was not worth a share even in this era of fruition?

"You know the story of that last, greatest, and most bloodless of revolutions. In the time of one generation men laid aside the social traditions and practices of barbarians, and assumed a social order worthy of rational and human beings. Ceasing to be predatory in their habits, they became co-workers, and found in fraternity, at once, the science of wealth and happiness. 'What shall I eat and drink, and wherewithal shall I be clothed?' stated as a problem beginning and ending in self, had been an anxious and an endless one. But when once it was conceived, not from the individual, but the fraternal standpoint, 'What shall we eat and drink, and wherewithal shall we be clothed?'—its difficulties vanished.

"Poverty with servitude had been the result, for the mass of humanity, of attempting to solve the problem of maintenance from the individual standpoint, but no sooner had the nation become the sole capitalist and employer than not alone did plenty replace poverty, but the last vestige of the serfdom of man to man disappeared from earth. Human slavery, so often vainly scotched, at last was killed. The means of subsistence no longer doled out by men to women, by employer to employed, by rich to poor, was distributed from a common stock as among children at the father's table. It was impossible for a man any longer to use his fellow-men as tools for his own profit. His esteem was the only sort of gain he could thenceforth make out of him. There was no more either arrogance or servility in the relations of human beings to one another. For the first time since the creation every man stood up straight before God. The fear of want and the lust of gain became extinct motives when abundance was assured to all and immoderate possessions made impossible of attainment. There were no more beggars nor almoners. Equity left charity without an occupation. The ten commandments became well nigh obsolete in a world where there was no temptation to theft, no occasion to lie either for fear or favor, no room for envy where all were equal, and little provocation to violence where men were

disarmed of power to injure one another. Humanity's ancient dream of liberty, equality, fraternity, mocked by so many ages, at last was realized.

"As in the old society the generous, the just, the tender-hearted had been placed at a disadvantage by the possession of those qualities; so in the new society the cold-hearted, the greedy, and self-seeking found themselves out of joint with the world. Now that the conditions of life for the first time ceased to operate as a forcing process to develop the brutal qualities of human nature, and the premium which had heretofore encouraged selfishness was not only removed, but placed upon unselfishness, it was for the first time possible to see what unperverted human nature really was like. The depraved tendencies, which had previously overgrown and obscured the better to so large an extent, now withered like cellar fungi in the open air, and the nobler qualities showed a sudden luxuriance which turned cynics into panegyrists and for the first time in human history tempted mankind to fall in love with itself. Soon was fully revealed, what the divines and philosophers of the old world never would have believed, that human nature in its essential qualities is good, not bad, that men by their natural intention and structure are generous, not selfish, pitiful, not cruel, sympathetic, not arrogant, godlike in aspirations, instinct with divinest impulses of tenderness and self-sacrifice, images of God indeed, not the travesties upon Him they had seemed. The constant pressure, through numberless generations, of conditions of life which might have perverted angels, had not been able to essentially alter the natural nobility of the stock, and these conditions once removed, like a bent tree, it had sprung back to its normal uprightness.

"To put the whole matter in the nutshell of a parable, let me compare humanity in the olden time to a rosebush planted in a swamp, watered with black bog-water, breathing miasmatic fogs by day, and chilled with poison dews at night. Innumerable generations of gardeners had done their best to make it bloom, but beyond an occasional half-opened bud with a worm at the heart, their efforts had been unsuccessful. Many, indeed, claimed that the bush was no rosebush at all, but a noxious shrub, fit only to be uprooted and burned. The gardeners, for the most part, however, held that the bush belonged to the rose family, but had some ineradicable taint about it, which prevented the buds from coming out, and accounted for its generally sickly condition. There were a few,

indeed, who maintained that the stock was good enough, that the trouble was in the bog, and that under more favorable conditions the plant might be expected to do better. But these persons were not regular gardeners, and being condemned by the latter as mere theorists and day dreamers, were, for the most part, so regarded by the people. Moreover, urged some eminent moral philosophers, even conceding for the sake of the argument that the bush might possibly do better elsewhere, it was a more valuable discipline for the buds to try to bloom in a bog than it would be under more favorable conditions. The buds that succeeded in opening might indeed be very rare, and the flowers pale and scentless, but they represented far more moral effort than if they had bloomed spontaneously in a garden.

"The regular gardeners and the moral philosophers had their way. The bush remained rooted in the bog, and the old course of treatment went on. Continually new varieties of forcing mixtures were applied to the roots, and more recipes than could be numbered, each declared by its advocates the best and only suitable preparation, were used to kill the vermin and remove the mildew. This went on a very long time. Occasionally some one claimed to observe a slight improvement in the appearance of the bush, but there were quite as many who declared that it did not look so well as it used to. On the whole there could not be said to be any marked change. Finally, during a period of general despondency as to the prospects of the bush where it was, the idea of transplanting it was again mooted, and this time found favor. 'Let us try it,' was the general voice. 'Perhaps it may thrive better elsewhere, and here it is certainly doubtful if it be worth cultivating longer.' So it came about that the rosebush of humanity was transplanted, and set in sweet, warm, dry earth, where the sun bathed it, the stars wooed it, and the south wind caressed it. Then it appeared that it was indeed a rosebush. The vermin and the mildew disappeared, and the bush was covered with most beautiful red roses, whose fragrance filled the world.

"It is a pledge of the destiny appointed for us that the Creator has set in our hearts an infinite standard of achievement, judged by which our past attainments seem always insignificant, and the goal never nearer. Had our forefathers conceived a state of society in which men should live together like brethren dwelling in unity, without strifes or envying, violence or overreaching,

and where, at the price of a degree of labor not greater than health demands, in their chosen occupations, they should be wholly freed from care for the morrow and left with no more concern for their livelihood than trees which are watered by unfailing streams,—had they conceived such a condition, I say, it would have seemed to them nothing less than paradise. They would have confounded it with their idea of heaven, nor dreamed that there could possibly lie further beyond anything to be desired or striven for.

"But how is it with us who stand on this height which they gazed up to? Already we have well nigh forgotten, except when it is especially called to our minds by some occasion like the present, that it was not always with men as it is now. It is a strain on our imaginations to conceive the social arrangements of our immediate ancestors. We find them grotesque. The solution of the problem of physical maintenance so as to banish care and crime, so far from seeming to us an ultimate attainment, appears but as a preliminary to anything like real human progress. We have but relieved ourselves of an impertinent and needless harassment which hindered our ancestor from undertaking the real ends of existence. We are merely stripped for the race; no more. We are like a child which has just learned to stand upright and to walk. It is a great event, from the child's point of view, when he first walks. Perhaps he fancies that there can be little beyond that achievement, but a year later he has forgotten that he could not always walk. His horizon did but widen when he rose, and enlarge as he moved. A great event indeed, in one sense, was his first step, but only as a beginning, not as the end. His true career was but then first entered on. The enfranchisement of humanity in the last century, from mental and physical absorption in working and scheming for the mere bodily necessities, may be regarded as a species of second birth of the race, without which its first birth to an existence that was but a burden would forever have remained unjustified, but whereby it is now abundantly vindicated. Since then, humanity has entered on a new phase of spiritual development, an evolution of higher faculties, the very existence of which in human nature our ancestors scarcely suspected. In place of the dreary hopelessness of the nineteenth century, its profound pessimism as to the future of humanity, the animating idea of the present age is an enthusiastic conception of the opportunities of our earthly existence, and the unbounded possibilities of human nature. The betterment of mankind from

generation to generation, physically, mentally, morally, is recognized as the one great object supremely worthy of effort and of sacrifice. We believe the race for the first time to have entered on the realization of God's ideal of it, and each generation must now be a step upward.

"Do you ask what we look for when unnumbered generations shall have passed away? I answer, the way stretches far before us, but the end is lost in light. For twofold is the return of man to God 'who is our home,' the return of the individual by the way of death, and the return of the race by the fulfillment of the evolution, when the divine secret hidden in the germ shall be perfectly unfolded. With a tear for the dark past, turn we then to the dazzling future, and, veiling our eyes, press forward. The long and weary winter of the race is ended. Its summer has begun. Humanity has burst the chrysalis. The heavens are before it."

CHAPTER 27

I never could tell just why, but Sunday afternoon during my old life had been a time when I was peculiarly subject to melancholy, when the color unaccountably faded out of all the aspects of life, and everything appeared pathetically uninteresting. The hours, which in general were wont to bear me easily on their wings, lost the power of flight, and toward the close of the day, drooping quite to earth, had fairly to be dragged along by main strength. Perhaps it was partly owing to the established association of ideas that, despite the utter change in my circumstances, I fell into a state of profound depression on the afternoon of this my first Sunday in the twentieth century.

It was not, however, on the present occasion a depression without specific cause, the mere vague melancholy I have spoken of, but a sentiment suggested and certainly quite justified by my position. The sermon of Mr. Barton, with its constant implication of the vast moral gap between the century to which I belonged and that in which I found myself, had had an effect strongly to accentuate my sense of loneliness in it. Considerately and philosophically as he had spoken, his words could scarcely have failed to leave upon my mind a strong impression of the mingled pity, curiosity, and aversion which I, as a representative of an abhorred epoch, must excite in all around me.

The extraordinary kindness with which I had been treated by Dr. Leete and his family, and especially the goodness of Edith, had hitherto prevented my fully realizing that their real sentiment toward me must necessarily be that of the whole generation to which they belonged. The recognition of this, as regarded Dr. Leete and his amiable wife, however painful, I might have endured, but the conviction that Edith must share their feeling was more than I could bear.

The crushing effect with which this belated perception of a fact so obvious came to me opened my eyes fully to something which perhaps the reader has already suspected,—I loved Edith.

Was it strange that I did? The affecting occasion on which our intimacy had begun, when her hands had drawn me out of the whirlpool of madness; the fact that her sympathy was the vital breath which had set me up in this new life and enabled me to support it; my habit of looking to her as the mediator between me

and the world around in a sense that even her father was not,—these were circumstances that had predetermined a result which her remarkable loveliness of person and disposition would alone have accounted for. It was quite inevitable that she should have come to seem to me, in a sense quite different from the usual experience of lovers, the only woman in this world. Now that I had become suddenly sensible of the fatuity of the hopes I had begun to cherish, I suffered not merely what another lover might, but in addition a desolate loneliness, an utter forlornness, such as no other lover, however unhappy, could have felt.

My hosts evidently saw that I was depressed in spirits, and did their best to divert me. Edith especially, I could see, was distressed for me, but according to the usual perversity of lovers, having once been so mad as to dream of receiving something more from her, there was no longer any virtue for me in a kindness that I knew was only sympathy.

Toward nightfall, after secluding myself in my room most of the afternoon, I went into the garden to walk about. The day was overcast, with an autumnal flavor in the warm, still air. Finding myself near the excavation, I entered the subterranean chamber and sat down there. "This," I muttered to myself, "is the only home I have. Let me stay here, and not go forth any more." Seeking aid from the familiar surroundings, I endeavored to find a sad sort of consolation in reviving the past and summoning up the forms and faces that were about me in my former life. It was in vain. There was no longer any life in them. For nearly one hundred years the stars had been looking down on Edith Bartlett's grave, and the graves of all my generation.

The past was dead, crushed beneath a century's weight, and from the present I was shut out. There was no place for me anywhere. I was neither dead nor properly alive.

"Forgive me for following you."

I looked up. Edith stood in the door of the subterranean room, regarding me smilingly, but with eyes full of sympathetic distress.

"Send me away if I am intruding on you," she said; "but we saw that you were out of spirits, and you know you promised to let me know if that were so. You have not kept your word."

I rose and came to the door, trying to smile, but making, I fancy, rather

sorry work of it, for the sight of her loveliness brought home to me the more poignantly the cause of my wretchedness.

"I was feeling a little lonely, that is all," I said. "Has it never occurred to you that my position is so much more utterly alone than any human being's ever was before that a new word is really needed to describe it?"

"Oh, you must not talk that way—you must not let yourself feel that way—you must not!" she exclaimed, with moistened eyes. "Are we not your friends? It is your own fault if you will not let us be. You need not be lonely."

"You are good to me beyond my power of understanding," I said, "but don't you suppose that I know it is pity merely, sweet pity, but pity only. I should be a fool not to know that I cannot seem to you as other men of your own generation do, but as some strange uncanny being, a stranded creature of an unknown sea, whose forlornness touches your compassion despite its grotesqueness. I have been so foolish, you were so kind, as to almost forget that this must needs be so, and to fancy I might in time become naturalized, as we used to say, in this age, so as to feel like one of you and to seem to you like the other men about you. But Mr. Barton's sermon taught me how vain such a fancy is, how great the gulf between us must seem to you."

"Oh that miserable sermon!" she exclaimed, fairly crying now in her sympathy, "I wanted you not to hear it. What does he know of you? He has read in old musty books about your times, that is all. What do you care about him, to let yourself be vexed by anything he said? Isn't it anything to you, that we who know you feel differently? Don't you care more about what we think of you than what he does who never saw you? Oh, Mr. West! you don't know, you can't think, how it makes me feel to see you so forlorn. I can't have it so. What can I say to you? How can I convince you how different our feeling for you is from what you think?"

As before, in that other crisis of my fate when she had come to me, she extended her hands toward me in a gesture of helpfulness, and, as then, I caught and held them in my own; her bosom heaved with strong emotion, and little tremors in the fingers which I clasped emphasized the depth of her feeling. In her face, pity contended in a sort of divine spite against the obstacles which reduced it to impotence. Womanly compassion surely never wore a guise more lovely.

Such beauty and such goodness quite melted me, and it seemed that the only fitting response I could make was to tell her just the truth. Of course I had not a spark of hope, but on the other hand I had no fear that she would be angry. She was too pitiful for that. So I said presently, "It is very ungrateful in me not to be satisfied with such kindness as you have shown me, and are showing me now. But are you so blind as not to see why they are not enough to make me happy? Don't you see that it is because I have been mad enough to love you?"

At my last words she blushed deeply and her eyes fell before mine, but she made no effort to withdraw her hands from my clasp. For some moments she stood so, panting a little. Then blushing deeper than ever, but with a dazzling smile, she looked up.

"Are you sure it is not you who are blind?" she said.

That was all, but it was enough, for it told me that, unaccountable, incredible as it was, this radiant daughter of a golden age had bestowed upon me not alone her pity, but her love. Still, I half believed I must be under some blissful hallucination even as I clasped her in my arms. "If I am beside myself," I cried, "let me remain so."

"It is I whom you must think beside myself," she panted, escaping from my arms when I had barely tasted the sweetness of her lips. "Oh! oh! what must you think of me almost to throw myself in the arms of one I have known but a week? I did not mean that you should find it out so soon, but I was so sorry for you I forgot what I was saying. No, no; you must not touch me again till you know who I am. After that, sir, you shall apologize to me very humbly for thinking, as I know you do, that I have been over quick to fall in love with you. After you know who I am, you will be bound to confess that it was nothing less than my duty to fall in love with you at first sight, and that no girl of proper feeling in my place could do otherwise."

As may be supposed, I would have been quite content to waive explanations, but Edith was resolute that there should be no more kisses until she had been vindicated from all suspicion of precipitancy in the bestowal of her affections, and I was fain to follow the lovely enigma into the house. Having come where her mother was, she blushingly whispered something in her ear and ran away, leaving us together.

It then appeared that, strange as my experience had been, I was now first to

know what was perhaps its strangest feature. From Mrs. Leete I learned that Edith was the great-granddaughter of no other than my lost love, Edith Bartlett. After mourning me for fourteen years, she had made a marriage of esteem, and left a son who had been Mrs. Leete's father. Mrs. Leete had never seen her grandmother, but had heard much of her, and, when her daughter was born, gave her the name of Edith. This fact might have tended to increase the interest which the girl took, as she grew up, in all that concerned her ancestress, and especially the tragic story of the supposed death of the lover, whose wife she expected to be, in the conflagration of his house. It was a tale well calculated to touch the sympathy of a romantic girl, and the fact that the blood of the unfortunate heroine was in her own veins naturally heightened Edith's interest in it. A portrait of Edith Bartlett and some of her papers, including a packet of my own letters, were among the family heirlooms. The picture represented a very beautiful young woman about whom it was easy to imagine all manner of tender and romantic things. My letters gave Edith some material for forming a distinct idea of my personality, and both together sufficed to make the sad old story very real to her. She used to tell her parents, half jestingly, that she would never marry till she found a lover like Julian West, and there were none such nowadays.

Now all this, of course, was merely the daydreaming of a girl whose mind had never been taken up by a love affair of her own, and would have had no serious consequence but for the discovery that morning of the buried vault in her father's garden and the revelation of the identity of its inmate. For when the apparently lifeless form had been borne into the house, the face in the locket found upon the breast was instantly recognized as that of Edith Bartlett, and by that fact, taken in connection with the other circumstances, they knew that I was no other than Julian West. Even had there been no thought, as at first there was not, of my resuscitation, Mrs. Leete said she believed that this event would have affected her daughter in a critical and life-long manner. The presumption of some subtle ordering of destiny, involving her fate with mine, would under all circumstances have possessed an irresistible fascination for almost any woman.

Whether when I came back to life a few hours afterward, and from the first seemed to turn to her with a peculiar dependence and to find a special solace in her company, she had been too quick in giving her love at the first sign of mine,

I could now, her mother said, judge for myself. If I thought so, I must remember that this, after all, was the twentieth and not the nineteenth century, and love was, no doubt, now quicker in growth, as well as franker in utterance than then.

From Mrs. Leete I went to Edith. When I found her, it was first of all to take her by both hands and stand a long time in rapt contemplation of her face. As I gazed, the memory of that other Edith, which had been affected as with a benumbing shock by the tremendous experience that had parted us, revived, and my heart was dissolved with tender and pitiful emotions, but also very blissful ones. For she who brought to me so poignantly the sense of my loss was to make that loss good. It was as if from her eyes Edith Bartlett looked into mine, and smiled consolation to me. My fate was not alone the strangest, but the most fortunate that ever befell a man. A double miracle had been wrought for me. I had not been stranded upon the shore of this strange world to find myself alone and companionless. My love, whom I had dreamed lost, had been reembodied for my consolation. When at last, in an ecstasy of gratitude and tenderness, I folded the lovely girl in my arms, the two Ediths were blended in my thought, nor have they ever since been clearly distinguished. I was not long in finding that on Edith's part there was a corresponding confusion of identities. Never, surely, was there between freshly united lovers a stranger talk than ours that afternoon. She seemed more anxious to have me speak of Edith Bartlett than of herself, of how I had loved her than how I loved herself, rewarding my fond words concerning another woman with tears and tender smiles and pressures of the hand.

"You must not love me too much for myself," she said. "I shall be very jealous for her. I shall not let you forget her. I am going to tell you something which you may think strange. Do you not believe that spirits sometimes come back to the world to fulfill some work that lay near their hearts? What if I were to tell you that I have sometimes thought that her spirit lives in me—that Edith Bartlett, not Edith Leete, is my real name. I cannot know it; of course none of us can know who we really are; but I can feel it. Can you wonder that I have such a feeling, seeing how my life was affected by her and by you, even before you came. So you see you need not trouble to love me at all, if only you are true to her. I shall not be likely to be jealous."

Dr. Leete had gone out that afternoon, and I did not have an interview with

him till later. He was not, apparently, wholly unprepared for the intelligence I conveyed, and shook my hand heartily.

"Under any ordinary circumstances, Mr. West, I should say that this step had been taken on rather short acquaintance; but these are decidedly not ordinary circumstances. In fairness, perhaps I ought to tell you," he added smilingly, "that while I cheerfully consent to the proposed arrangement, you must not feel too much indebted to me, as I judge my consent is a mere formality. From the moment the secret of the locket was out, it had to be, I fancy. Why, bless me, if Edith had not been there to redeem her great-grandmother's pledge, I really apprehend that Mrs. Leete's loyalty to me would have suffered a severe strain."

That evening the garden was bathed in moonlight, and till midnight Edith and I wandered to and fro there, trying to grow accustomed to our happiness.

"What should I have done if you had not cared for me?" she exclaimed. "I was afraid you were not going to. What should I have done then, when I felt I was consecrated to you! As soon as you came back to life, I was as sure as if she had told me that I was to be to you what she could not be, but that could only be if you would let me. Oh, how I wanted to tell you that morning, when you felt so terribly strange among us, who I was, but dared not open my lips about that, or let father or mother——"

"That must have been what you would not let your father tell me!" I exclaimed, referring to the conversation I had overheard as I came out of my trance.

"Of course it was," Edith laughed. "Did you only just guess that? Father being only a man, thought that it would make you feel among friends to tell you who we were. He did not think of me at all. But mother knew what I meant, and so I had my way. I could never have looked you in the face if you had known who I was. It would have been forcing myself on you quite too boldly. I am afraid you think I did that to-day, as it was. I am sure I did not mean to, for I know girls were expected to hide their feelings in your day, and I was dreadfully afraid of shocking you. Ah me, how hard it must have been for them to have always had to conceal their love like a fault. Why did they think it such a shame to love any one till they had been given permission? It is so odd to think of waiting for permission to fall in love. Was it because men in those days were

angry when girls loved them? That is not the way women would feel, I am sure, or men either, I think, now. I don't understand it at all. That will be one of the curious things about the women of those days that you will have to explain to me. I don't believe Edith Bartlett was so foolish as the others."

After sundry ineffectual attempts at parting, she finally insisted that we must say good night. I was about to imprint upon her lips the positively last kiss, when she said, with an indescribable archness:

"One thing troubles me. Are you sure that you quite forgive Edith Bartlett for marrying any one else? The books that have come down to us make out lovers of your time more jealous than fond, and that is what makes me ask. It would be a great relief to me if I could feel sure that you were not in the least jealous of my great-grandfather for marrying your sweetheart. May I tell my great-grandmother's picture when I go to my room that you quite forgive her for proving false to you?"

Will the reader believe it, this coquettish quip, whether the speaker herself had any idea of it or not, actually touched and with the touching cured a preposterous ache of something like jealousy which I had been vaguely conscious of ever since Mrs. Leete had told me of Edith Bartlett's marriage. Even while I had been holding Edith Bartlett's great-granddaughter in my arms, I had not, till this moment, so illogical are some of our feelings, distinctly realized that but for that marriage I could not have done so. The absurdity of this frame of mind could only be equalled by the abruptness with which it dissolved as Edith's roguish query cleared the fog from my perceptions. I laughed as I kissed her.

"You may assure her of my entire forgiveness," I said, "although if it had been any man but your great-grandfather whom she married, it would have been a very different matter."

On reaching my chamber that night I did not open the musical telephone that I might be lulled to sleep with soothing tunes, as had become my habit. For once my thoughts made better music than even twentieth century orchestras discourse, and it held me enchanted till well toward morning, when I fell asleep.

CHAPTER 28

"It's a little after the time you told me to wake you, sir. You did not come out of it as quick as common, sir."

The voice was the voice of my man Sawyer. I started bolt upright in bed and stared around. I was in my underground chamber. The mellow light of the lamp which always burned in the room when I occupied it illumined the familiar walls and furnishings. By my bedside, with the glass of sherry in his hand which Dr. Pillsbury prescribed on first rousing from a mesmeric sleep, by way of awakening the torpid physical functions, stood Sawyer.

"Better take this right off, sir," he said, as I stared blankly at him. "You look kind of flushed like, sir, and you need it."

I tossed off the liquor and began to realize what had happened to me. It was, of course, very plain. All that about the twentieth century had been a dream. I had but dreamed of that enlightened and care-free race of men and their ingeniously simple institutions, of the glorious new Boston with its domes and pinnacles, its gardens and fountains, and its universal reign of comfort. The amiable family which I had learned to know so well, my genial host and Mentor, Dr. Leete, his wife, and their daughter, the second and more beauteous Edith, my betrothed—these, too, had been but figments of a vision.

For a considerable time I remained in the attitude in which this conviction had come over me, sitting up in bed gazing at vacancy, absorbed in recalling the scenes and incidents of my fantastic experience. Sawyer, alarmed at my looks, was meanwhile anxiously inquiring what was the matter with me. Roused at length by his importunities to a recognition of my surroundings, I pulled myself together with an effort and assured the faithful fellow that I was all right. "I have had an extraordinary dream, that's all, Sawyer," I said, "a most-ex-traor-dinary dream."

I dressed in a mechanical way, feeling light-headed and oddly uncertain of myself, and sat down to the coffee and rolls which Sawyer was in the habit of providing for my refreshment before I left the house. The morning newspaper lay by the plate. I took it up, and my eye fell on the date, May 31, 1887. I had known, of course, from the moment I opened my eyes that my long and detailed experience in another century had been a dream, and yet it was startling to have

it so conclusively demonstrated that the world was but a few hours older than when I had lain down to sleep.

Glancing at the table of contents at the head of the paper, which reviewed the news of the morning, I read the following summary:

FOREIGN AFFAIRS.—The impending war between France and Germany. The French Chambers asked for new military credits to meet Germany's increase of her army. Probability that all Europe will be involved in case of war. —Great suffering among the unemployed in London. They demand work. Monster demonstration to be made. The authorities uneasy.—Great strikes in Belgium. The government preparing to repress outbreaks. Shocking facts in regard to the employment of girls in Belgium coal mines.—Wholesale evictions in Ireland.

"HOME AFFAIRS.—The epidemic of fraud unchecked. Embezzlement of half a million in New York.—Misappropriation of a trust fund by executors. Orphans left penniless.—Clever system of thefts by a bank teller; $50,000 gone.—The coal barons decide to advance the price of coal and reduce production.—Speculators engineering a great wheat corner at Chicago.—A clique forcing up the price of coffee.—Enormous land-grabs of Western syndicates.—Revelations of shocking corruption among Chicago officials. Systematic bribery.—The trials of the Boodle aldermen to go on at New York.— Large failures of business houses. Fears of a business crisis.—A large grist of burglaries and larcenies.—A woman murdered in cold blood for her money at New Haven.—A householder shot by a burglar in this city last night.—A man shoots himself in Worcester because he could not get work. A large family left destitute.—An aged couple in New Jersey commit suicide rather than go to the poor-house.—Pitiable destitution among the women wage-workers in the great cities.—Startling growth of illiteracy in Massachusetts.—More insane asylums wanted.—Decoration Day addresses. Professor Brown's oration on the moral grandeur of nineteenth century civilization."

It was indeed the nineteenth century to which I had awaked; there could be no kind of doubt about that. Its complete microcosm this summary of the day's news had presented, even to that last unmistakable touch of fatuous self-complacency. Coming after such a damning indictment of the age as that one day's chronicle of world-wide bloodshed, greed, and tyranny, was a bit of

cynicism worthy of Mephistopheles, and yet of all whose eyes it had met this morning I was, perhaps, the only one who perceived the cynicism, and but yesterday I should have perceived it no more than the others. That strange dream it was which had made all the difference. For I know not how long, I forgot my surroundings after this, and was again in fancy moving in that vivid dream-world, in that glorious city, with its homes of simple comfort and its gorgeous public palaces. Around me were again faces unmarred by arrogance or servility, by envy or greed, by anxious care or feverish ambition, and stately forms of men and women who had never known fear of a fellow man or depended on his favor, but always, in the words of that sermon which still rang in my ears, had "stood up straight before God."

With a profound sigh and a sense of irreparable loss, not the less poignant that it was a loss of what had never really been, I roused at last from my reverie, and soon after left the house.

A dozen times between my door and Washington Street I had to stop and pull myself together, such power had been in that vision of the Boston of the future to make the real Boston strange. The squalor and malodorousness of the town struck me, from the moment I stood upon the street, as facts I had never before observed. But yesterday, moreover, it had seemed quite a matter of course that some of my fellow-citizens should wear silks, and others rags, that some should look well fed, and others hungry. Now on the contrary the glaring disparities in the dress and condition of the men and women who brushed each other on the sidewalks shocked me at every step, and yet more the entire indifference which the prosperous showed to the plight of the unfortunate. Were these human beings, who could behold the wretchedness of their fellows without so much as a change of countenance? And yet, all the while, I knew well that it was I who had changed, and not my contemporaries. I had dreamed of a city whose people fared all alike as children of one family and were one another's keepers in all things.

Another feature of the real Boston, which assumed the extraordinary effect of strangeness that marks familiar things seen in a new light, was the prevalence of advertising. There had been no personal advertising in the Boston of the twentieth century, because there was no need of any, but here the walls of the buildings, the windows, the broadsides of the newspapers in every hand, the

very pavements, everything in fact in sight, save the sky, were covered with the appeals of individuals who sought, under innumerable pretexts, to attract the contributions of others to their support. However the wording might vary, the tenor of all these appeals was the same:

"Help John Jones. Never mind the rest. They are frauds. I, John Jones, am the right one. Buy of me. Employ me. Visit me. Hear me, John Jones. Look at me. Make no mistake, John Jones is the man and nobody else. Let the rest starve, but for God's sake remember John Jones!"

Whether the pathos or the moral repulsiveness of the spectacle most impressed me, so suddenly become a stranger in my own city, I know not. Wretched men, I was moved to cry, who, because they will not learn to be helpers of one another, are doomed to be beggars of one another from the least to the greatest! This horrible babel of shameless self-assertion and mutual depreciation, this stunning clamor of conflicting boasts, appeals, and adjurations, this stupendous system of brazen beggary, what was it all but the necessity of a society in which the opportunity to serve the world according to his gifts, instead of being secured to every man as the first object of social organization, had to be fought for!

I reached Washington Street at the busiest point, and there I stood and laughed aloud, to the scandal of the passers-by. For my life I could not have helped it, with such a mad humor was I moved at sight of the interminable rows of stores on either side, up and down the street so far as I could see—scores of them, to make the spectacle more utterly preposterous, within a stone's throw devoted to selling the same sort of goods. Stores! stores! stores! miles of stores! ten thousand stores to distribute the goods needed by this one city, which in my dream had been supplied with all things from a single warehouse, as they were ordered through one great store in every quarter, where the buyer, without waste of time or labor, found under one roof the world's assortment in whatever line he desired. There the labor of distribution had been so slight as to add but a scarcely perceptible fraction to the cost of commodities to the user. The cost of production was virtually all he paid. But here the mere distribution of the goods, their handling alone, added a fourth, a third, a half and more, to the cost. All these ten thousand plants must be paid for, their rent, their staffs of superintendence, their platoons of salesmen, their ten thousand sets of

accountants, jobbers, and business dependents, with all they spent in advertising themselves and fighting one another, and the consumers must do the paying. What a famous process for beggaring a nation!

Were these serious men I saw about me, or children, who did their business on such a plan? Could they be reasoning beings, who did not see the folly which, when the product is made and ready for use, wastes so much of it in getting it to the user? If people eat with a spoon that leaks half its contents between bowl and lip, are they not likely to go hungry?

I had passed through Washington Street thousands of times before and viewed the ways of those who sold merchandise, but my curiosity concerning them was as if I had never gone by their way before. I took wondering note of the show windows of the stores, filled with goods arranged with a wealth of pains and artistic device to attract the eye. I saw the throngs of ladies looking in, and the proprietors eagerly watching the effect of the bait. I went within and noted the hawk-eyed floor-walker watching for business, overlooking the clerks, keeping them up to their task of inducing the customers to buy, buy, buy, for money if they had it, for credit if they had it not, to buy what they wanted not, more than they wanted, what they could not afford. At times I momentarily lost the clue and was confused by the sight. Why this effort to induce people to buy? Surely that had nothing to do with the legitimate business of distributing products to those who needed them. Surely it was the sheerest waste to force upon people what they did not want, but what might be useful to another. The nation was so much the poorer for every such achievement. What were these clerks thinking of? Then I would remember that they were not acting as distributors like those in the store I had visited in the dream Boston. They were not serving the public interest, but their immediate personal interest, and it was nothing to them what the ultimate effect of their course on the general prosperity might be, if but they increased their own hoard, for these goods were their own, and the more they sold and the more they got for them, the greater their gain. The more wasteful the people were, the more articles they did not want which they could be induced to buy, the better for these sellers. To encourage prodigality was the express aim of the ten thousand stores of Boston.

Nor were these storekeepers and clerks a whit worse men than any others in Boston. They must earn a living and support their families, and how were they

to find a trade to do it by which did not necessitate placing their individual interests before those of others and that of all? They could not be asked to starve while they waited for an order of things such as I had seen in my dream, in which the interest of each and that of all were identical. But, God in heaven! what wonder, under such a system as this about me—what wonder that the city was so shabby, and the people so meanly dressed, and so many of them ragged and hungry!

Some time after this it was that I drifted over into South Boston and found myself among the manufacturing establishments. I had been in this quarter of the city a hundred times before, just as I had been on Washington Street, but here, as well as there, I now first perceived the true significance of what I witnessed. Formerly I had taken pride in the fact that, by actual count, Boston had some four thousand independent manufacturing establishments; but in this very multiplicity and independence I recognized now the secret of the insignificant total product of their industry.

If Washington Street had been like a lane in Bedlam, this was a spectacle as much more melancholy as production is a more vital function than distribution. For not only were these four thousand establishments not working in concert, and for that reason alone operating at prodigious disadvantage, but, as if this did not involve a sufficiently disastrous loss of power, they were using their utmost skill to frustrate one another's effort, praying by night and working by day for the destruction of one another's enterprises.

The roar and rattle of wheels and hammers resounding from every side was not the hum of a peaceful industry, but the clangor of swords wielded by foemen. These mills and shops were so many forts, each under its own flag, its guns trained on the mills and shops about it, and its sappers busy below, undermining them.

Within each one of these forts the strictest organization of industry was insisted on; the separate gangs worked under a single central authority. No interference and no duplicating of work were permitted. Each had his allotted task, and none were idle. By what hiatus in the logical faculty, by what lost link of reasoning, account, then, for the failure to recognize the necessity of applying the same principle to the organization of the national industries as a whole, to see that if lack of organization could impair the efficiency of a shop, it must

have effects as much more disastrous in disabling the industries of the nation at large as the latter are vaster in volume and more complex in the relationship of their parts.

People would be prompt enough to ridicule an army in which there were neither companies, battalions, regiments, brigades, divisions, or army corps—no unit of organization, in fact, larger than the corporal's squad, with no officer higher than a corporal, and all the corporals equal in authority. And yet just such an army were the manufacturing industries of nineteenth century Boston, an army of four thousand independent squads led by four thousand independent corporals, each with a separate plan of campaign.

Knots of idle men were to be seen here and there on every side, some idle because they could find no work at any price, others because they could not get what they thought a fair price. I accosted some of the latter, and they told me their grievances. It was very little comfort I could give them. "I am sorry for you," I said. "You get little enough, certainly, and yet the wonder to me is, not that industries conducted as these are do not pay you living wages, but that they are able to pay you any wages at all."

Making my way back again after this to the peninsular city, toward three o'clock I stood on State Street, staring, as if I had never seen them before, at the banks and brokers' offices, and other financial institutions, of which there had been in the State Street of my vision no vestige. Business men, confidential clerks, and errand boys were thronging in and out of the banks, for it wanted but a few minutes of the closing hour. Opposite me was the bank where I did business, and presently I crossed the street, and, going in with the crowd, stood in a recess of the wall looking on at the army of clerks handling money, and the cues of depositors at the tellers' windows. An old gentleman whom I knew, a director of the bank, passing me and observing my contemplative attitude, stopped a moment.

"Interesting sight, isn't it, Mr. West," he said. "Wonderful piece of mechanism; I find it so myself. I like sometimes to stand and look on at it just as you are doing. It's a poem, sir, a poem, that's what I call it. Did you ever think, Mr. West, that the bank is the heart of the business system? From it and to it, in endless flux and reflux, the life blood goes. It is flowing in now. It will flow out again in the morning"; and pleased with his little conceit, the old man

passed on smiling.

Yesterday I should have considered the simile apt enough, but since then I had visited a world incomparably more affluent than this, in which money was unknown and without conceivable use. I had learned that it had a use in the world around me only because the work of producing the nation's livelihood, instead of being regarded as the most strictly public and common of all concerns, and as such conducted by the nation, was abandoned to the haphazard efforts of individuals. This original mistake necessitated endless exchanges to bring about any sort of general distribution of products. These exchanges money effected—how equitably, might be seen in a walk from the tenement house districts to the Back Bay—at the cost of an army of men taken from productive labor to manage it, with constant ruinous breakdowns of its machinery, and a generally debauching influence on mankind which had justified its description, from ancient time, as the "root of all evil."

Alas for the poor old bank director with his poem! He had mistaken the throbbing of an abscess for the beating of the heart. What he called "a wonderful piece of mechanism" was an imperfect device to remedy an unnecessary defect, the clumsy crutch of a self-made cripple.

After the banks had closed I wandered aimlessly about the business quarter for an hour or two, and later sat a while on one of the benches of the Common, finding an interest merely in watching the throngs that passed, such as one has in studying the populace of a foreign city, so strange since yesterday had my fellow citizens and their ways become to me. For thirty years I had lived among them, and yet I seemed to have never noted before how drawn and anxious were their faces, of the rich as of the poor, the refined, acute faces of the educated as well as the dull masks of the ignorant. And well it might be so, for I saw now, as never before I had seen so plainly, that each as he walked constantly turned to catch the whispers of a spectre at his ear, the spectre of Uncertainty. "Do your work never so well," the spectre was whispering—"rise early and toil till late, rob cunningly or serve faithfully, you shall never know security. Rich you may be now and still come to poverty at last. Leave never so much wealth to your children, you cannot buy the assurance that your son may not be the servant of your servant, or that your daughter will not have to sell herself for bread."

A man passing by thrust an advertising card in my hand, which set forth the

merits of some new scheme of life insurance. The incident reminded me of the only device, pathetic in its admission of the universal need it so poorly supplied, which offered these tired and hunted men and women even a partial protection from uncertainty. By this means, those already well-to-do, I remembered, might purchase a precarious confidence that after their death their loved ones would not, for a while at least, be trampled under the feet of men. But this was all, and this was only for those who could pay well for it. What idea was possible to these wretched dwellers in the land of Ishmael, where every man's hand was against each and the hand of each against every other, of true life insurance as I had seen it among the people of that dream land, each of whom, by virtue merely of his membership in the national family, was guaranteed against need of any sort, by a policy underwritten by one hundred million fellow countrymen.

Some time after this it was that I recall a glimpse of myself standing on the steps of a building on Tremont Street, looking at a military parade. A regiment was passing. It was the first sight in that dreary day which had inspired me with any other emotions than wondering pity and amazement. Here at last were order and reason, an exhibition of what intelligent cooperation can accomplish. The people who stood looking on with kindling faces,—could it be that the sight had for them no more than but a spectacular interest? Could they fail to see that it was their perfect concert of action, their organization under one control, which made these men the tremendous engine they were, able to vanquish a mob ten times as numerous? Seeing this so plainly, could they fail to compare the scientific manner in which the nation went to war with the unscientific manner in which it went to work? Would they not query since what time the killing of men had been a task so much more important than feeding and clothing them, that a trained army should be deemed alone adequate to the former, while the latter was left to a mob?

It was now toward nightfall, and the streets were thronged with the workers from the stores, the shops, and mills. Carried along with the stronger part of the current, I found myself, as it began to grow dark, in the midst of a scene of squalor and human degradation such as only the South Cove tenement district could present. I had seen the mad wasting of human labor; here I saw in direst shape the want that waste had bred.

From the black doorways and windows of the rookeries on every side came gusts of fetid air. The streets and alleys reeked with the effluvia of a slave ship's between-decks. As I passed I had glimpses within of pale babies gasping out their lives amid sultry stenches, of hopeless-faced women deformed by hardship, retaining of womanhood no trait save weakness, while from the windows leered girls with brows of brass. Like the starving bands of mongrel curs that infest the streets of Moslem towns, swarms of half-clad brutalized children filled the air with shrieks and curses as they fought and tumbled among the garbage that littered the court-yards.

There was nothing in all this that was new to me. Often had I passed through this part of the city and witnessed its sights with feelings of disgust mingled with a certain philosophical wonder at the extremities mortals will endure and still cling to life. But not alone as regarded the economical follies of this age, but equally as touched its moral abominations, scales had fallen from my eyes since that vision of another century. No more did I look upon the woful dwellers in this Inferno with a callous curiosity as creatures scarcely human. I saw in them my brothers and sisters, my parents, my children, flesh of my flesh, blood of my blood. The festering mass of human wretchedness about me offended not now my senses merely, but pierced my heart like a knife, so that I could not repress sighs and groans. I not only saw but felt in my body all that I saw.

Presently, too, as I observed the wretched beings about me more closely, I perceived that they were all quite dead. Their bodies were so many living sepulchres. On each brutal brow was plainly written the hic jacet of a soul dead within.

As I looked, horror struck, from one death's head to another, I was affected by a singular hallucination. Like a wavering translucent spirit face superimposed upon each of these brutish masks I saw the ideal, the possible face that would have been the actual if mind and soul had lived. It was not till I was aware of these ghostly faces, and of the reproach that could not be gainsaid which was in their eyes, that the full piteousness of the ruin that had been wrought was revealed to me. I was moved with contrition as with a strong agony, for I had been one of those who had endured that these things should be. I had been one of those who, well knowing that they were, had not desired to hear or

be compelled to think much of them, but had gone on as if they were not, seeking my own pleasure and profit. Therefore now I found upon my garments the blood of this great multitude of strangled souls of my brothers. The voice of their blood cried out against me from the ground. Every stone of the reeking pavements, every brick of the pestilential rookeries, found a tongue and called after me as I fled: What hast thou done with thy brother Abel?

I have no clear recollection of anything after this till I found myself standing on the carved stone steps of the magnificent home of my betrothed in Commonwealth Avenue. Amid the tumult of my thoughts that day, I had scarcely once thought of her, but now obeying some unconscious impulse my feet had found the familiar way to her door. I was told that the family were at dinner, but word was sent out that I should join them at table. Besides the family, I found several guests present, all known to me. The table glittered with plate and costly china. The ladies were sumptuously dressed and wore the jewels of queens. The scene was one of costly elegance and lavish luxury. The company was in excellent spirits, and there was plentiful laughter and a running fire of jests.

To me it was as if, in wandering through the place of doom, my blood turned to tears by its sights, and my spirit attuned to sorrow, pity, and despair, I had happened in some glade upon a merry party of roisterers. I sat in silence until Edith began to rally me upon my sombre looks, What ailed me? The others presently joined in the playful assault, and I became a target for quips and jests. Where had I been, and what had I seen to make such a dull fellow of me?

"I have been in Golgotha," at last I answered. "I have seen Humanity hanging on a cross! Do none of you know what sights the sun and stars look down on in this city, that you can think and talk of anything else? Do you not know that close to your doors a great multitude of men and women, flesh of your flesh, live lives that are one agony from birth to death? Listen! their dwellings are so near that if you hush your laughter you will hear their grievous voices, the piteous crying of the little ones that suckle poverty, the hoarse curses of men sodden in misery turned half-way back to brutes, the chaffering of an army of women selling themselves for bread. With what have you stopped your ears that you do not hear these doleful sounds? For me, I can hear nothing else."

Silence followed my words. A passion of pity had shaken me as I spoke, but

when I looked around upon the company, I saw that, far from being stirred as I was, their faces expressed a cold and hard astonishment, mingled in Edith's with extreme mortification, in her father's with anger. The ladies were exchanging scandalized looks, while one of the gentlemen had put up his eyeglass and was studying me with an air of scientific curiosity. When I saw that things which were to me so intolerable moved them not at all, that words that melted my heart to speak had only offended them with the speaker, I was at first stunned and then overcome with a desperate sickness and faintness at the heart. What hope was there for the wretched, for the world, if thoughtful men and tender women were not moved by things like these! Then I bethought myself that it must be because I had not spoken aright. No doubt I had put the case badly. They were angry because they thought I was berating them, when God knew I was merely thinking of the horror of the fact without any attempt to assign the responsibility for it.

I restrained my passion, and tried to speak calmly and logically that I might correct this impression. I told them that I had not meant to accuse them, as if they, or the rich in general, were responsible for the misery of the world. True indeed it was, that the superfluity which they wasted would, otherwise bestowed, relieve much bitter suffering. These costly viands, these rich wines, these gorgeous fabrics and glistening jewels represented the ransom of many lives. They were verily not without the guiltiness of those who waste in a land stricken with famine. Nevertheless, all the waste of all the rich, were it saved, would go but a little way to cure the poverty of the world. There was so little to divide that even if the rich went share and share with the poor, there would be but a common fare of crusts, albeit made very sweet then by brotherly love.

The folly of men, not their hard-heartedness, was the great cause of the world's poverty. It was not the crime of man, nor of any class of men, that made the race so miserable, but a hideous, ghastly mistake, a colossal world-darkening blunder. And then I showed them how four fifths of the labor of men was utterly wasted by the mutual warfare, the lack of organization and concert among the workers. Seeking to make the matter very plain, I instanced the case of arid lands where the soil yielded the means of life only by careful use of the watercourses for irrigation. I showed how in such countries it was counted the most important function of the government to see that the water was not wasted

by the selfishness or ignorance of individuals, since otherwise there would be famine. To this end its use was strictly regulated and systematized, and individuals of their mere caprice were not permitted to dam it or divert it, or in any way to tamper with it.

The labor of men, I explained, was the fertilizing stream which alone rendered earth habitable. It was but a scanty stream at best, and its use required to be regulated by a system which expended every drop to the best advantage, if the world were to be supported in abundance. But how far from any system was the actual practice! Every man wasted the precious fluid as he wished, animated only by the equal motives of saving his own crop and spoiling his neighbor's, that his might sell the better. What with greed and what with spite some fields were flooded while others were parched, and half the water ran wholly to waste. In such a land, though a few by strength or cunning might win the means of luxury, the lot of the great mass must be poverty, and of the weak and ignorant bitter want and perennial famine.

Let but the famine-stricken nation assume the function it had neglected, and regulate for the common good the course of the life-giving stream, and the earth would bloom like one garden, and none of its children lack any good thing. I described the physical felicity, mental enlightenment, and moral elevation which would then attend the lives of all men. With fervency I spoke of that new world, blessed with plenty, purified by justice and sweetened by brotherly kindness, the world of which I had indeed but dreamed, but which might so easily be made real. But when I had expected now surely the faces around me to light up with emotions akin to mine, they grew ever more dark, angry, and scornful. Instead of enthusiasm, the ladies showed only aversion and dread, while the men interrupted me with shouts of reprobation and contempt. "Madman!" "Pestilent fellow!" "Fanatic!" "Enemy of society!" were some of their cries, and the one who had before taken his eyeglass to me exclaimed, "He says we are to have no more poor. Ha! ha!"

"Put the fellow out!" exclaimed the father of my betrothed, and at the signal the men sprang from their chairs and advanced upon me.

It seemed to me that my heart would burst with the anguish of finding that what was to me so plain and so all important was to them meaningless, and that I was powerless to make it other. So hot had been my heart that I had thought to

melt an iceberg with its glow, only to find at last the overmastering chill seizing my own vitals. It was not enmity that I felt toward them as they thronged me, but pity only, for them and for the world.

Although despairing, I could not give over. Still I strove with them. Tears poured from my eyes. In my vehemence I became inarticulate. I panted, I sobbed, I groaned, and immediately afterward found myself sitting upright in bed in my room in Dr. Leete's house, and the morning sun shining through the open window into my eyes. I was gasping. The tears were streaming down my face, and I quivered in every nerve.

As with an escaped convict who dreams that he has been recaptured and brought back to his dark and reeking dungeon, and opens his eyes to see the heaven's vault spread above him, so it was with me, as I realized that my return to the nineteenth century had been the dream, and my presence in the twentieth was the reality.

The cruel sights which I had witnessed in my vision, and could so well confirm from the experience of my former life, though they had, alas! once been, and must in the retrospect to the end of time move the compassionate to tears, were, God be thanked, forever gone by. Long ago oppressor and oppressed, prophet and scorner, had been dust. For generations, rich and poor had been forgotten words.

But in that moment, while yet I mused with unspeakable thankfulness upon the greatness of the world's salvation and my privilege in beholding it, there suddenly pierced me like a knife a pang of shame, remorse, and wondering self-reproach, that bowed my head upon my breast and made me wish the grave had hid me with my fellows from the sun. For I had been a man of that former time. What had I done to help on the deliverance whereat I now presumed to rejoice? I who had lived in those cruel, insensate days, what had I done to bring them to an end? I had been every whit as indifferent to the wretchedness of my brothers, as cynically incredulous of better things, as besotted a worshiper of Chaos and Old Night, as any of my fellows. So far as my personal influence went, it had been exerted rather to hinder than to help forward the enfranchisement of the race which was even then preparing. What right had I to hail a salvation which reproached me, to rejoice in a day whose dawning I had mocked?

"Better for you, better for you," a voice within me rang, "had this evil dream

been the reality, and this fair reality the dream; better your part pleading for crucified humanity with a scoffing generation, than here, drinking of wells you digged not, and eating of trees whose husbandmen you stoned"; and my spirit answered, "Better, truly."

When at length I raised my bowed head and looked forth from the window, Edith, fresh as the morning, had come into the garden and was gathering flowers. I hastened to descend to her. Kneeling before her, with my face in the dust, I confessed with tears how little was my worth to breathe the air of this golden century, and how infinitely less to wear upon my breast its consummate flower. Fortunate is he who, with a case so desperate as mine, finds a judge so merciful.

DEATHWORLD



BY HARRY HARRISON





Some planet in the galaxy must—by definition—be the toughest, meanest, nastiest of all. If Pyrrus wasn't it … it was an awfully good approximation!

I.

JASON dinALT sprawled in soft luxury on the couch, a large frosty stein held limply in one hand. His other hand rested casually on a pillow. The gun behind the pillow was within easy reach of his fingers. In his line of work he never took chances.

It was all highly suspicious. Jason didn't know a soul on this planet. Yet the card sent by service tube from the hotel desk had read: *Kerk Pyrrus would like to see Jason dinAlt*. Blunt and to the point. He signaled the desk to send the man up, then lowered his fingers a bit until they brushed the gun butt. The door slid open and his visitor stepped through.

A retired wrestler. That was Jason's first thought. Kerk Pyrrus was a gray-haired rock of a man. His body seemingly chiseled out of flat slabs of muscle. Then Jason saw the gun strapped to the inside of the other man's forearm, and he let his fingers drop casually behind the pillow.

"I'd appreciate it," Jason said, "if you'd take off your gun while you're in here." The other man stopped and scowled down at the gun as if he was seeing it for the first time.

"No, I never take it off." He seemed mildly annoyed by the suggestion.

Jason had his fingers on his own gun when he said, "I'm afraid I'll have to insist. I always feel a little uncomfortable around people who wear guns." He kept talking to distract attention while he pulled out his gun. Fast and smooth.

He could have been moving in slow motion for all the difference it made. Kerk Pyrrus stood rock still while the gun came out, while it swung in his direction. Not until the very last instant did he act. When he did, the motion wasn't visible. First his gun was in the arm holster—then it was aimed between Jason's eyes. It was an ugly, heavy weapon with a pitted front orifice that showed plenty of use.

And Jason knew if he swung his own weapon up a fraction of an inch more he would be dead. He dropped his arm carefully and Kerk flipped his own gun back in the holster with the same ease he had drawn it.

"Now," the stranger said, "if we're through playing, let's get down to business. I have a proposition for you."

Jason downed a large mouthful from the mug and bridled his temper. He

was fast with a gun—his life had depended on it more than once—and this was the first time he had been outdrawn. It was the offhand, unimportant manner it had been done that irritated him.

"I'm not prepared to do business," he said acidly. "I've come to Cassylia for a vacation, get away from work."

"Let's not fool each other, dinAlt," Kerk said impatiently. "You've never worked at an honest job in your entire life. You're a professional gambler and that's why I'm here to see you."

Jason forced down his anger and threw the gun to the other end of the couch so he wouldn't be tempted to commit suicide. He *had* hoped no one knew him on Cassylia and was looking forward to a big kill at the Casino. He would worry about that later. This weight-lifter type seemed to know all the answers. Let him plot the course for a while and see where it led.

"All right, what do you want?"

Kerk dropped into a chair that creaked ominously under his weight, and dug an envelope out of one pocket. He flipped through it quickly and dropped a handful of gleaming Galactic Exchange notes onto the table. Jason glanced at them—then sat up suddenly.

"What are they—forgeries?" he asked, holding one up to the light.

"They're real enough," Kerk told him, "I picked them up at the bank. Exactly twenty-seven bills—or twenty-seven million credits. I want you to use them as a bankroll when you go to the Casino tonight. Gamble with them and win."

They looked real enough—and they could be checked. Jason fingered them thoughtfully while he examined the other man.

"I don't know what you have in mind," he said. "But you realize I can't make any guarantees. I gamble—but I don't always win ..."

"You gamble—and you win when you want to," Kerk said grimly. "We looked into that quite carefully before I came to you."

"If you mean to say that I cheat—" Carefully, Jason grabbed his temper again and held it down. There was no future in getting annoyed.

Kerk continued in the same level voice, ignoring Jason's growing anger. "Maybe you don't call it cheating, frankly I don't care. As far as I'm concerned

you could have your suit lined with aces and electromagnets in your boots. As long as you *won*. I'm not here to discuss moral points with you. I said I had a proposition.

"We have worked hard for that money—but it still isn't enough. To be precise, we need three billion credits. The only way to get that sum is by gambling—with these twenty-seven million as bankroll."

"And what do I get out of it?" Jason asked the question coolly, as if any bit of the fantastic proposition made sense.

"Everything above the three billion you can keep, that should be fair enough. You're not risking your own money, but you stand to make enough to keep you for life if you win."

"And if I lose—?"

Kerk thought for a moment, not liking the taste of the idea. "Yes—there is the chance you might lose, I hadn't thought about that."

He reached a decision. "If you lose—well I suppose that is just a risk we will have to take. Though I think I would kill you then. The ones who died to get the twenty-seven million deserve at least that." He said it quietly, without malice, and it was more of a promise than a threat.

Stamping to his feet Jason refilled his stein and offered one to Kerk who took it with a nod of thanks. He paced back and forth, unable to sit. The whole proposition made him angry—yet at the same time had a fatal fascination. He was a gambler and this talk was like the taste of drugs to an addict.

Stopping suddenly, he realized that his mind had been made up for some time. Win or lose—live or die—how could he say no to the chance to gamble with money like that! He turned suddenly and jabbed his finger at the big man in the chair.

"I'll do it—you probably knew I would from the time you came in here. There are some terms of my own, though. I want to know who you are, and who *they* are you keep talking about. And where did the money come from. Is it stolen?"

Kerk drained his own stein and pushed it away from him.

"Stolen money? No, quite the opposite. Two years' work mining and refining ore to get it. It was mined on Pyrrus and sold here on Cassylia. You can check on that very easily. I sold it. I'm the Pyrric ambassador to this planet." He

smiled at the thought. "Not that that means much, I'm ambassador to at least six other planets as well. Comes in handy when you want to do business."

Jason looked at the muscular man with his gray hair and worn, military-cut clothes, and decided not to laugh. You heard of strange things out in the frontier planets and every word could be true. He had never heard of Pyrrus either, though that didn't mean anything. There were over thirty-thousand known planets in the inhabited universe.

"I'll check on what you have told me," Jason said. "If it's true, we can do business. Call me tomorrow—"

"No," Kerk said. "The money has to be won tonight. I've already issued a check for this twenty-seven million, it will bounce as high as the Pleiades unless we deposit the money in the morning, so that's our time limit."

With each moment the whole affair became more fantastic—and more intriguing for Jason. He looked at his watch. There was still enough time to find out if Kerk was lying or not.

"All right, we'll do it tonight," he said. "Only I'll have to have one of those bills to check."

Kerk stood up to go. "Take them all, I won't be seeing you again until after you've won. I'll be at the Casino of course, but don't recognize me. It would be much better if they didn't know where your money was coming from or how much you had."

Then he was gone, after a bone-crushing handclasp that closed on Jason's hand like vise jaws. Jason was alone with the money. Fanning the bills out like a hand of cards he stared at their sepia and gold faces, trying to get the reality through his head. Twenty-seven million credits. What was to stop him from just walking out the door with them and vanishing. Nothing really, except his own sense of honor.

Kerk Pyrrus, the man with the same last name as the planet he came from, was the universe's biggest fool. Or he knew just what he was doing. From the way the interview had gone the latter seemed the better bet.

"He *knows* I would much rather gamble with the money than steal it," he said wryly.

Slipping a small gun into his waistband holster and pocketing the money he went out.

II.

The robot teller at the bank just pinged with electronic shock when he presented one of the bills and flashed a panel that directed him to see Vice President Wain. Wain was a smooth customer who bugged his eyes and lost some of his tan when he saw the sheaf of bills.

"You ... wish to deposit these with us?" he asked while his fingers unconsciously stroked them.

"Not today," Jason said. "They were paid to me as a debt. Would you please check that they are authentic and change them? I'd like five hundred thousand credit notes."

Both of his inner chest pockets were packed tight when he left the bank. The bills were good and he felt like a walking mint. This was the first time in his entire life that carrying a large sum of money made him uncomfortable. Waving to a passing helicab he went directly to the Casino, where he knew he would be safe—for a while.

Cassylia Casino was the playspot of the nearby cluster of star systems. It was the first time Jason had seen it, though he knew its type well. He had spent most of his adult life in casinos like this on other worlds. The decor differed but they were always the same. Gambling and socialities in public—and behind the scenes all the private vice you could afford. Theoretically no-limit games, but that was true only up to a certain point. When the house was really hurt the honest games stopped being square and the big winner had to watch his step very carefully. These were the odds Jason dinAlt had played against countless times before. He was wary but not very concerned.

The dining room was almost empty and the major-domo quickly rushed to the side of the relaxed stranger in the richly cut clothes. Jason was lean and dark, looking more like the bored scion of some rich family than a professional gambler. This appearance was important and he cultivated it. The cuisine looked good and the cellar turned out to be wonderful. He had a professional talk with the sommelier while waiting for the soup, then settled down to enjoy his meal.

He ate leisurely and the large dining room was filled before he was through. Watching the entertainment over a long cigar killed some more time. When he

finally went to the gaming rooms they were filled and active.

Moving slowly around the room he dropped a few thousand credits. He scarcely noticed how he played, giving more attention to the feel of the games. The play all seemed honest and none of the equipment was rigged. That could be changed very quickly, he realized. Usually it wasn't necessary, house percentage was enough to assure a profit.

Once he saw Kerk out of the corner of his eye but he paid him no attention. The ambassador was losing small sums steadily at seven-and-silver and seemed to be impatient. Probably waiting for Jason to begin playing seriously. He smiled and strolled on slowly.

Jason settled on the dice table as he usually did. It was the surest way to make small winnings. *And if I feel it tonight I can clean this casino out!* That was his secret, the power that won for him steadily—and every once in a while enabled him to make a killing and move on quickly before the hired thugs came to get the money back.

The dice reached him and he threw an eight the hard way. Betting was light and he didn't push himself, just kept away from the sevens. He made the point and passed a natural. Then he crapped out and the dice moved on.

Sitting there, making small automatic bets while the dice went around the table, he thought about the power. *Funny, after all the years of work we still don't know much about* psi. *They can train people a bit, and improve skills a bit —but that's all.*

He was feeling strong tonight, he knew that the money in his pocket gave him the extra lift that sometimes helped him break through. With his eyes half closed he picked up the dice—and let his mind gently caress the pattern of sunken dots. Then they shot out of his hand and he stared at a seven.

It was there.

Stronger than he had felt it in years. The stiff weight of those million-credit notes had done it. The world all around was sharp-cut clear and the dice was completely in his control. He knew to the tenth-credit how much the other players had in their wallets and was aware of the cards in the hands of the players behind him.

Slowly, carefully, he built up the stakes.

There was no effort to the dice, they rolled and sat up like trained dogs. Jason took his time and concentrated on the psychology of the players and the stick man. It took almost two hours to build his money on the table to seven hundred thousand credits. Then he caught the stick man signaling they had a heavy winner. He waited until the hard-eyed man strolled over to watch the game, then he smiled happily, bet all his table stakes—and blew it on one roll of the dice. The house man smiled happily, the stick man relaxed—and out of the corner of his eye Jason saw Kerk turning a dark purple.

Sweating, pale, his hand trembling ever so slightly, Jason opened the front of his jacket and pulled out one of the envelopes of new bills. Breaking the seal with his finger he dropped two of them on the table.

"Could we have a no-limit game?" he asked, "I'd like to—win back some of my money."

The stick man had trouble controlling his smile now, he glanced across at the house man who nodded a quick *yes*. They had a sucker and they meant to clean him. He had been playing from his wallet all evening, now he was cracking into a sealed envelope to try for what he had lost. A thick envelope too, and probably not his money. Not that the house cared in the least. To them money had no loyalties. The play went on with the Casino in a very relaxed mood.

Which was just the way Jason wanted it. He needed to get as deep into them as he could before someone realized *they* might be on the losing end. The rough stuff would start and he wanted to put it off as long as possible. It would be hard to win smoothly then—and his *psi* power might go as quickly as it had come. That had happened before.

He was playing against the house now, the two other players were obvious shills, and a crowd had jammed solidly around to watch. After losing and winning a bit he hit a streak of naturals and his pile of gold chips tottered higher and higher. There was nearly a billion there, he estimated roughly. The dice were still falling true, though he was soaked with sweat from the effort. Betting the entire stack of chips he reached for the dice. The stick man reached faster and hooked them away.

"House calls for new dice," he said flatly.

Jason straightened up and wiped his hands, glad of the instant's relief. This

was the third time the house had changed dice to try and break his winning streak, it was their privilege. The hard-eyed Casino man opened his wallet as he had done before and drew out a pair at random. Stripping off their plastic cover he threw them the length of the table to Jason. They came up a natural seven and Jason smiled.

When he scooped them up the smile slowly faded. The dice were transparent, finely made, evenly weighted on all sides—and crooked.

The pigment on the dots of five sides of each die was some heavy metal compound, probably lead. The sixth side was a ferrous compound. They would roll true unless they hit a magnetic field—that meant the entire surface of the table could be magnetized. He could never have spotted the difference if he hadn't *looked* at the dice with his mind. But what could he do about it?

Shaking them slowly he glanced quickly around the table. There was what he needed. An ashtray with a magnet in its base to hold it to the metal edge of the table. Jason stopped shaking the dice and looked at them quizzically, then reached over and grabbed the ashtray. He dropped the base against his hand.

As he lifted the ashtray there was a concerted gasp from all sides. The dice were sticking there, upside down, box cars showing.

"Are these what you call honest dice?" he asked.

The man who had thrown out the dice reached quickly for his hip pocket. Jason was the only one who saw what happened next. He was watching that hand closely, his own fingers near his gun butt. As the man dived into his pocket a hand reached out of the crowd behind him. From its square-cut size it could have belonged to only one person. The thick thumb and index finger clamped swiftly around the house man's wrist, then they were gone. The man screamed shrilly and held up his arm, his hand dangling limp as a glove from the broken wrist bones.

With his flank well protected, Jason could go on with the game. "The old dice if you don't mind," he said quietly.

Dazedly the stick man pushed them over. Jason shook quickly and rolled. Before they hit the table he realized he couldn't control them—the transient *psi* power had gone.

End over end they turned. And faced up seven.

Counting the chips as they were pushed over to him he added up a bit under two billion credits. They would be winning that much if he left the game now—but it wasn't the three billion that Kerk needed. Well, it would have to be enough. As he reached for the chips he caught Kerk's eye across the table and the other man shook his head in a steady *no*.

"Let it ride," Jason said wearily, "one more roll."

He breathed on the dice, polished them on his cuff, and wondered how he had ever gotten into this spot. Billions riding on a pair of dice. That was as much as the annual income of some planets. The only reason there *could* be stakes like that was because the planetary government had a stake in the Casino. He shook as long as he could, reaching for the control that wasn't there —then let fly.

Everything else had stopped in the Casino and people were standing on tables and chairs to watch. There wasn't a sound from that large crowd. The dice bounced back from the board with a clatter loud in the silence and tumbled over the cloth.

A five and a one. Six. He still had to make his point. Scooping up the dice Jason talked to them, mumbled the ancient oaths that brought luck and threw again.

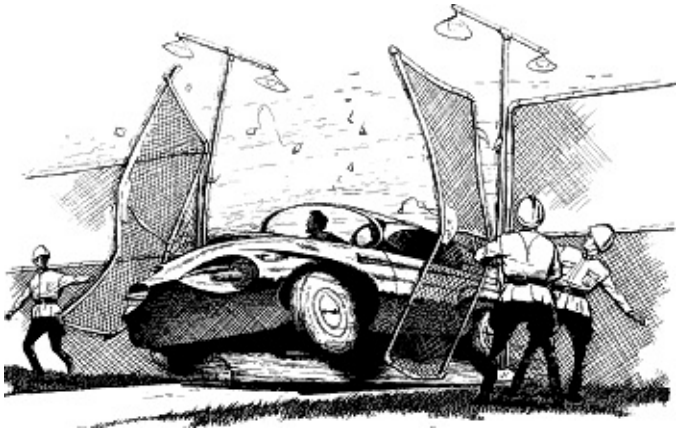
It took five throws before he made the six.

The crowd echoed his sigh and their voices rose quickly. He wanted to stop, take a deep breath, but he knew he couldn't. Winning the money was only part of the job—they now had to get away with it. It had to look casual. A waiter was passing with a tray of drinks. Jason stopped him and tucked a hundred-credit note in his pocket.

"Drinks are on me," he shouted while he pried the tray out of the waiter's hands. Well-wishers cleared the filled glasses away quickly and Jason piled the chips onto the tray. They more than loaded it, but Kerk appeared that moment with a second tray.

"I'll be glad to help you, sir, if you will permit me," he said.

Jason looked at him, and laughed permission. It was the first time he had a clear look at Kerk in the Casino. He was wearing loose, purple evening pajamas over what must have been a false stomach. The sleeves were long and baggy so he looked fat rather than muscular. It was a simple but effective disguise.



Carefully carrying the loaded trays, surrounded by a crowd of excited patrons, they made their way to the cashier's window. The manager himself was there, wearing a sickly grin. Even the grin faded when he counted the chips.

"Could you come back in the morning," he said, "I'm afraid we don't have that kind of money on hand."

"What's the matter," Kerk shouted, "trying to get out of paying him? You took *my* money easy enough when I lost—it works both ways!"

The onlookers, always happy to see the house lose, growled their disagreement. Jason finished the matter in a loud voice.

"I'll be reasonable, give me what cash you have and I'll take a check for the balance."

There was no way out. Under the watchful eye of the gleeful crowd the manager packed an envelope with bills and wrote a check. Jason took a quick glimpse at it, then stuffed it into an inside pocket. With the envelope under one arm he followed Kerk towards the door.

Because of the onlookers there was no trouble in the main room, but just as they reached the side entrance two men moved in, blocking the way.

"Just a moment—" one said. He never finished the sentence. Kerk walked into them without slowing and they bounced away like tenpins. Then Kerk and Jason were out of the building and walking fast.

"Into the parking lot," Kerk said. "I have a car there."

When they rounded the corner there was a car bearing down on them. Before Jason could get his gun clear of the holster Kerk was in front of him. His arm came up and his big ugly gun burst through the cloth of his sleeve and jumped into his hand. A single shot killed the driver and the car swerved and

crashed. The other two men in the car died coming out of the door, their guns dropping from their hands.

After that they had no trouble. Kerk drove at top speed away from the Casino, the torn sleeve of his pajamas whipping in the breeze, giving glimpses of the big gun back in the holster.

"When you get the chance," Jason said, "you'll have to show me how that trick holster works."

"When we get the chance," Kerk answered as he dived the car into the city access tube.

III.

The building they stopped at was one of the finer residences in Cassylia. As they had driven, Jason counted the money and separated his share. Almost sixteen million credits. It still didn't seem quite real. When they got out in front of the building he gave Kerk the rest.

"Here's your three billion, don't think it was easy," he said.

"It could have been worse," was his only answer.

The recorded voice scratched in the speaker over the door.

"Sire Ellus has retired for the night, would you please call again in the morning. All appointments are made in advan—"

The voice broke off as Kerk pushed the door open. He did it almost effortlessly with the flat of his hand. As they went in Jason looked at the remnants of torn and twisted metal that hung in the lock and wondered again about his companion.

Strength—more than physical strength—he's like an elemental force. I have the feeling that nothing can stop him.

It made him angry—and at the same time fascinated him. He didn't want out of the deal until he found out more about Kerk and his planet. And "they" who had died for the money he gambled.

Sire Ellus was old, balding and angry, not at all used to having his rest disturbed. His complaints stopped suddenly when Kerk threw the money down on the table.

"Is the ship being loaded yet, Ellus? Here's the balance due." Ellus only fumbled the bills for a moment before he could answer Kerk's question.

"The ship—but, of course. We began loading when you gave us the deposit. You'll have to excuse my confusion, this is a little irregular. We never handle transactions of this size in cash."

"That's the way I like to do business," Kerk answered him, "I've canceled the deposit, this is the total sum. Now how about a receipt."

Ellus had made out the receipt before his senses returned. He held it tightly while he looked uncomfortably at the three billion spread out before him.

"Wait—I can't take it now, you'll have to return in the morning, to the bank. In normal business fashion," Ellus decided firmly.

Kerk reached over and gently drew the paper out of Ellus' hand.

"Thanks for the receipt," he said. "I won't be here in the morning so this will be satisfactory. And if you're worried about the money I suggest you get in touch with some of your plant guards or private police. You'll feel a lot safer."

When they left through the shattered door Ellus was frantically dialing numbers on his screen. Kerk answered Jason's next question before he could ask it.

"I imagine you would like to live to spend that money in your pocket, so I've booked two seats on an interplanetary ship," he glanced at the car clock. "It leaves in about two hours so we have plenty of time. I'm hungry, let's find a restaurant. I hope you have nothing at the hotel worth going back for. It would be a little difficult."

"Nothing worth getting killed for," Jason said. "Now where can we go to eat —there are a few questions I would like to ask you."

They circled carefully down to the transport levels until they were sure they hadn't been followed. Kerk nosed the car into a darkened loading dock where they abandoned it.

"We can always get another car," he said, "and they probably have this one spotted. Let's walk back to the freightway, I saw a restaurant there as we came by."

Dark and looming shapes of overland freight carriers filled the parking lot. They picked their way around the man-high wheels and into the hot and noisy restaurant. The drivers and early morning workers took no notice of them as they found a booth in the back and dialed a meal.

Kerk chiseled a chunk of meat off the slab in front of him and popped it cheerfully into his mouth. "Ask your questions," he said. "I'm feeling much better already."

"What's in this ship you arranged for tonight—what kind of a cargo was I risking my neck for?"

"I thought you were risking your neck for money," Kerk said dryly. "But be assured it was in a good cause. That cargo means the survival of a world. Guns, ammunition, mines, explosives and such."

Jason choked over a mouthful of food. "Gun-running! What are you doing,

financing a private war? And how can you talk about survival with a lethal cargo like that? Don't try and tell me they have a peaceful use. Who are you killing?"

Most of the big man's humor had vanished, he had that grim look Jason knew well.

"Yes, peaceful would be the right word. Because that is basically all we want. Just to live in peace. And it is not *who* are we killing—it is *what* we are killing."

Jason pushed his plate away with an angry gesture. "You're talking in riddles," he said. "What you say has no meaning."

"It has meaning enough," Kerk told him, "but only on one planet in the universe. Just how much do you know about Pyrrus?"

"Absolutely nothing."

For a moment Kerk sat wrapped in memory, scowling distantly. Then he went on.

"Mankind doesn't belong on Pyrrus—yet has been there for almost three hundred years now. The age expectancy of my people is sixteen years. Of course most adults live beyond that, but the high child mortality brings the average down.

"It is everything that a humanoid world should not be. The gravity is nearly twice Earth normal. The temperature can vary daily from arctic to tropic. The climate—well you have to experience it to believe it. Like nothing you've seen anywhere else in the galaxy."

"I'm frightened," Jason said dryly. "What do you have—methane or chlorine reactions? I've been down on planets like that—"

Kerk slammed his hand down hard on the table. The dishes bounced and the table legs creaked. "Laboratory reactions!" he growled. "They look great on a bench—but what happens when you have a world filled with those compounds? In an eye-wink of galactic time all the violence is locked up in nice, stable compounds. The atmosphere may be poisonous for an oxygen breather, but taken by itself it's as harmless as weak beer.

"There is only one setup that is pure poison as a planetary atmosphere. Plenty of H_2O, the most universal solvent you can find, plus free oxygen to work on—"

"Water and oxygen!" Jason broke in. "You mean Earth—or a planet like Cassylia here? That's preposterous."

"Not at all. Because you were born in this kind of environment you accept it as right and natural. You take it for granted that metals corrode, coastlines change, and storms interfere with communication. These are normal occurrences on oxygen-water worlds. On Pyrrus these conditions are carried to the nth degree.

"The planet has an axial tilt of almost forty-two degrees, so there is a tremendous change in temperature from season to season. This is one of the prime causes of a constantly changing icecap. The weather generated by this is spectacular to say the least."

"If that's all," Jason said, "I don't see why—"

"That's *not* all—it's barely the beginning. The open seas perform the dual destructive function of supplying water vapor to keep the weather going, and building up gigantic tides. Pyrrus' two satellites, Samas and Bessos, combine at times to pull the oceans up into thirty meter tides. And until you've seen one of these tides lap over into an active volcano you've seen nothing.

"Heavy elements are what brought us to Pyrrus—and these same elements keep the planet at a volcanic boil. There have been at least thirteen super-novas in the immediate stellar neighborhood. Heavy elements can be found on most of their planets of course—as well as completely unbreathable atmospheres. Long-term mining and exploitation can't be done by anything but a self-sustaining colony. Which meant Pyrrus. Where the radioactive elements are locked in the planetary core, surrounded by a shell of lighter ones. While this allows for the atmosphere men need, it also provides unceasing volcanic activity as the molten plasma forces its way to the surface."

For the first time Jason was silent. Trying to imagine what life could be like on a planet constantly at war with itself.

"I've saved the best for last," Kerk said with grim humor. "Now that you have an idea of what the environment is like—think of the kind of life forms that would populate it. I doubt if there is one off-world species that would live a minute. Plants and animals on Pyrrus are *tough*. They fight the world and they fight each other. Hundreds of thousands of years of genetic weeding-out have produced things that would give even an electronic brain nightmares. Armor-

plated, poisonous, claw-tipped and fanged-mouthed. That describes everything that walks, flaps or just sits and grows. Ever see a plant with teeth—that bite? I don't think you want to. You'd have to be on Pyrrus and that means you would be dead within seconds of leaving the ship. Even I'll have to take a refresher course before I'll be able to go outside the landing buildings. The unending war for survival keeps the life forms competing and changing. Death is simple, but the ways of dealing it too numerous to list."

Unhappiness rode like a weight on Kerk's broad shoulders. After long moments of thought he moved visibly to shake it off. Returning his attention to his food and mopping the gravy from his plate, he voiced part of his feelings.

"I suppose there is no logical reason why we should stay and fight this endless war. Except that Pyrrus is our home." The last piece of gravy-soaked bread vanished and he waved the empty fork at Jason.

"Be happy you're an off-worlder and will never have to see it."

"That's where you're wrong." Jason said as calmly as he could. "You see, I'm going back with you."

IV.

"Don't talk stupidly," Kerk said as he punched for a duplicate order of steak. "There are much simpler ways of committing suicide. Don't you realize that you're a millionaire now? With what you have in your pocket you can relax the rest of your life on the pleasure planets. Pyrrus is a death world, not a sightseeing spot for jaded tourists. I cannot permit you to return with me."

Gamblers who lose their tempers don't last long. Jason was angry now. Yet it showed only in a negative way. In the lack of expression on his face and the calmness of his voice.

"Don't tell me what I can or cannot do, Kerk Pyrrus. You're a big man with a fast gun—but that doesn't make you my boss. All you can do is stop me from going back on your ship. But I can easily afford to get there another way. And don't try to tell me I want to go to Pyrrus for sightseeing when you have no idea of my real reasons."

Jason didn't even try to explain his reasons, they were only half realized and too personal. The more he traveled, the more things looked the same to him. The old, civilized planets sank into a drab similarity. Frontier worlds all had the crude sameness of temporary camps in a forest. Not that the galactic worlds bored him. It was just that he had found their limitations—yet had never found his own. Until he met Kerk he had acknowledged no man his superior, or even his equal. This was more than egotism. It was facing facts. Now he was forced to face the fact that there was a whole world of people who might be superior to him. Jason could never rest content until he had been there and seen for himself. Even if he died in the attempt.

None of this could be told to Kerk. There were other reasons he would understand better.

"You're not thinking ahead when you prevent me from going to Pyrrus," Jason said. "I'll not mention any moral debt you owe me for winning that money you needed. But what about the next time? If you needed that much lethal goods once, you'll probably need it again some day. Wouldn't it be better to have me on hand—old tried and true—than dreaming up some new and possibly unreliable scheme?"

Kerk chewed pensively on the second serving of steak. "That makes sense.

And I must admit I hadn't thought of it before. One failing we Pyrrans have is a lack of interest in the future. Staying alive day by day is enough trouble. So we tend to face emergencies as they arrive and let the dim future take care of itself. You can come. I hope you will still be alive when we need you. As Pyrran ambassador to a lot of places I officially invite you to our planet. All expenses paid. On the condition you obey completely all our instructions regarding your personal safety."

"Conditions accepted," Jason said. And wondered why he was so cheerful about signing his own death warrant.

Kerk was shoveling his way through his third dessert when his alarm watch gave a tiny hum. He dropped his fork instantly and stood up. "Time to go," he said. "We're on schedule now." While Jason scrambled to his feet, he jammed coins into the meter until the *paid* light came on. Then they were out the door and walking fast.

Jason wasn't at all surprised when they came on a public escalator just behind the restaurant. He was beginning to realize that since leaving the Casino their every move had been carefully planned and timed. Without a doubt the alarm was out and the entire planet being searched for them. Yet so far they hadn't noticed the slightest sign of pursuit. This wasn't the first time Jason had to move just one jump ahead of the authorities—but it was the first time he had let someone else lead him by the hand while he did it. He had to smile at his own automatic agreement. He had been a loner for so many years that he found a certain inverse pleasure in following someone else.

"Hurry up," Kerk growled after a quick glance at his watch. He set a steady, killing pace up the escalator steps. They went up five levels that way—without seeing another person—before Kerk relented and let the escalator do the work.

Jason prided himself on keeping in condition. But the sudden climb, after the sleepless night, left him panting heavily and soaked with sweat. Kerk, cool of forehead and breathing normally, didn't show the slightest sign that he had been running.

They were at the second motor level when Kerk stepped off the slowly rising steps and waved Jason after him. As they came through the exit to the street a car pulled up to the curb in front of them. Jason had enough sense not to reach

for his gun. At the exact moment they reached the car the driver opened the door and stepped out. Kerk passed him a slip of paper without saying a word and slipped in behind the wheel. There was just time for Jason to jump in before the car pulled away. The entire transfer had taken less than three seconds.

There had been only a glimpse of the driver in the dim light, but Jason had recognized him. Of course he had never seen the man before, but after knowing Kerk he couldn't mistake the compact strength of a native Pyrran.

"That was the receipt from Ellus you gave him," Jason said.

"Of course. That takes care of the ship and the cargo. They'll be off-planet and safely away before the casino check is traced to Ellus. So now let's look after ourselves. I'll explain the plan in detail so there will be no slip-ups on your part. I'll go through the whole thing once and if there are any questions you'll ask them when I'm finished."

The tones of command were so automatic that Jason found himself listening in quiet obedience. Though one part of his mind wanted him to smile at the quick assumption of his incompetence.

Kerk swung the car into the steady line of traffic heading out of the city to the spaceport. He drove easily while he talked.

"There is a search on in the city, but we're well ahead of that. I'm sure the Cassylians don't want to advertise their bad sportsmanship so there won't be anything as crude as a roadblock. But the port will be crawling with every agent they have. They know once the money gets off-planet it is gone forever. When we make a break for it they will be sure we still have the goods. So there will be no trouble with the munition ship getting clear."

Jason sounded a little shocked. "You mean you're setting us up as clay pigeons to cover the take-off of the ship."

"You could put it that way. But since we have to get off-planet anyway, there is no harm in using our escape as a smokescreen. Now shut up until I've finished, like I told you. One more interruption and I dump you by the road."

Jason was sure he would. He listened intently—and quietly—as Kerk repeated word for word what he had said before, then continued.

"The official car gate will probably be wide open with the traffic through it. And a lot of the agents will be in plain clothes. We might even get onto the field

without being recognized, though I doubt it. It is of no importance. We will drive through the gate and to the take-off pad. The *Pride of Darkhan*, for which we hold tickets, will be sounding its two-minute siren and unhooking the gangway. By the time we get to our seats the ship will take off."

"That's all very fine," Jason said. "But what will the guards be doing all this time?"

"Shooting at us and each other. We will take advantage of the confusion to get aboard."

This answer did nothing to settle Jason's mind, but he let it slide for the moment. "All right—say we *do* get aboard. Why don't they just prevent take-off until we have been dragged out and stood against a wall?"

Kerk spared him a contemptuous glance before he returned his eyes to the road. "I said the ship was the *Pride of Darkhan*. If you had studied this system at all, you would know what that means. Cassylia and Darkhan are sister planets and rivals in every way. It has been less than two centuries since they fought an intra-system war that almost destroyed both of them. Now they exist in an armed-to-the-teeth neutrality that neither dare violate. The moment we set foot aboard the ship we are on Darkhan territory. There is no extradition agreement between the planets. Cassylia may want us—but not badly enough to start another war."

That was all the explanation there was time for. Kerk swung the car out of the rush of traffic and onto a bridge marked *Official Cars Only*. Jason had a feeling of nakedness as they rolled under the harsh port lights towards the guarded gate ahead.

It was closed.

Another car approached the gate from the inside and Kerk slowed their car to a crawl. One of the guards talked to the driver of the car inside the port, then waved to the gate attendant. The barrier gate began to swing inwards and Kerk jammed down on the accelerator.

Everything happened at once. The turbine howled, the spinning tires screeched on the road and the car crashed open the gate. Jason had a vanishing glimpse of the open-mouthed guards, then they were skidding around the corner of a building. A few shots popped after them, but none came close.

Driving with one hand, Kerk reached under the dash and pulled out a gun

that was the twin of the monster strapped to his arm. "Use this instead of your own," he said. "Rocket-propelled explosive slugs. Make a great bang. Don't bother shooting at anyone—I'll take care of that. Just stir up a little action and make them keep their distance. Like this."

He fired a single, snap-shot out the side window and passed the gun to Jason almost before the slug hit. An empty truck blew up with a roar, raining pieces on the cars around and sending their drivers fleeing in panic.

After that it was a nightmare ride through a madhouse. Kerk drove with an apparent contempt for violent death. Other cars followed them and were lost in wheel-raising turns. They careened almost the full length of the field, leaving a trail of smoking chaos.

Then the pursuit was all behind them and the only thing ahead was the slim spire of the *Pride of Darkhan*.

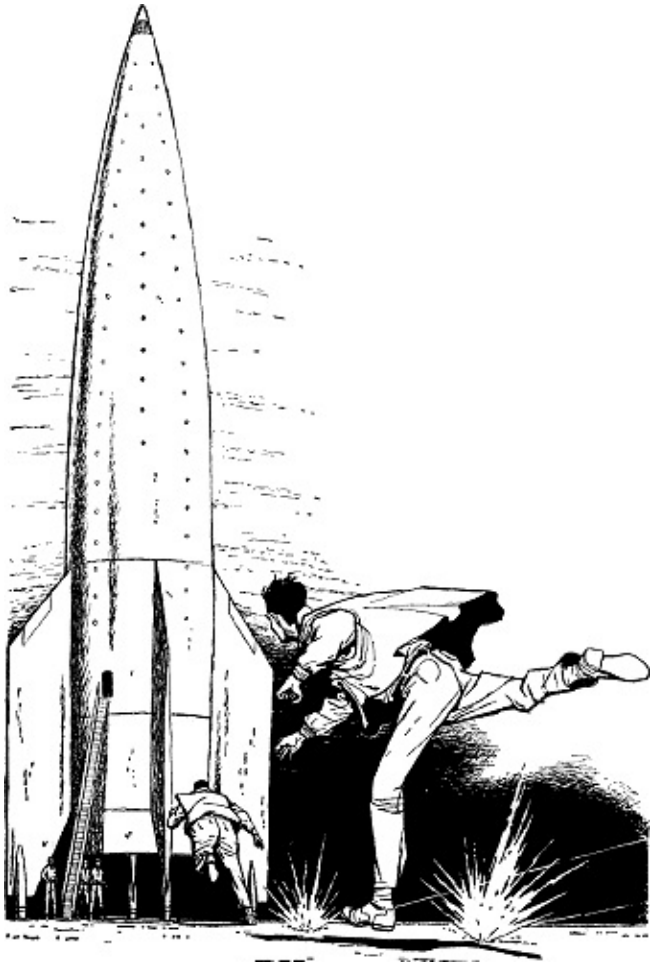
The *Pride* was surrounded by a strong wire fence as suited the begrudged status of her planetary origin. The gate was closed and guarded by soldiers with leveled guns, waiting for a shot at the approaching car. Kerk made no attempt to come near them. Instead he fed the last reserves of power to the car and headed for the fence. "Cover your face," he shouted.

Jason put his arms in front of his head just as they hit.

Torn metal screamed, the fence buckled, wrapped itself around the car, but did not break. Jason flew off the seat and into the padded dash. By the time Kerk had the warped door open, he realized that the ride was over. Kerk must have seen the spin of his eyeballs because he didn't talk, just pulled Jason out and threw him onto the hood of the ruined car.

"Climb over the buckled wire and make a run for the ship," he shouted.

If there was any doubt what he meant, he set Jason an example of fine roadwork. It was inconceivable that someone of his bulk could run so fast, yet he did. He moved more like a charging tank than a man. Jason shook the fog from his head and worked up some speed himself. Nevertheless, he was barely halfway to the ship when Kerk hit the gangway. It was already unhooked from the ship, but the shocked attendants stopped rolling it away as the big man bounded up the steps.



At the top he turned and fired at the soldiers who were charging through the open gate. They dropped, crawled, and returned his fire. Very few shot at Jason's running form.

The scene in front of Jason cranked over in slow motion. Kerk standing at the top of the ramp, coolly returning the fire that splashed all about. He could have found safety in an instant through the open port behind him. The only reason he stayed there was to cover Jason.

"Thanks—" Jason managed to gasp as he made the last few steps up the gangway, jumped the gap and collapsed inside the ship.

"You're perfectly welcome," Kerk said as he joined him, waving his gun to cool it off.

A grim-jawed ship's officer stood back out of range of fire from the ground and looked them both up and down. "And just what is going on here?" he growled.

Kerk tested the barrel with a wet thumb, then let the gun slide back into its

holster. "We are law-abiding citizens of a different system who have committed no criminal acts. The savages of Cassylia are too barbarous for civilized company. Therefore we are going to Darkhan—here are our tickets—in whose sovereign territory I believe we are at this moment." This last was added for the benefit of the Cassylian officer who had just stumbled to the top of the gangway and was raising his gun.

The soldier couldn't be blamed. He saw these badly wanted criminals getting away. Aboard a Darkhan ship as well. Anger got the best of him and he brought his gun up.

"Come out of there, you scum. You're not escaping that easily. Come out slow with your hands up or I'll blast you—"

It was a frozen moment of time that stretched and stretched without breaking. The pistol covered Kerk and Jason. Neither of them attempted to reach for their own guns.

The gun twitched a bit as the ship's officer moved, then steadied back on the two men. The Darkhan spaceman hadn't gone far, just a pace across the lock. This was enough to bring him next to a red box set flush with the wall. With a single, swift gesture he flipped up the cover and poised his thumb over the button inside. When he smiled his lips peeled back to show all of his teeth. He had made up his mind, and it was the arrogance of the Cassylian officer that had been the deciding factor.

"Fire a single shot into Darkhan territory and I press this button," he shouted. "And you know what this button does—every one of your ships has them as well. Commit a hostile act against this ship and *someone* will press a button. Every control rod will be blown out of the ship's pile at that instant and half your filthy city will go up in the explosion." His smile was chiseled on his face and there was no doubt he would do what he said. "Go ahead—fire. I think I would enjoy pressing this."

The take-off siren was hooting now, the *close lock* light blinking an angry message from the bridge. Like four actors in a grim drama they faced each other an instant more.

Then the Cassylian officer, growling with unvoicable frustrated anger, turned and leaped back to the steps.

"All passengers board ship. Forty-five seconds to take-off. Clear the port."

The ship's officer slammed shut the cover of the box and locked it as he talked. There was barely time to make the acceleration couches before the *Pride of Darkhan* cleared ground.

V.

Once the ship was in orbit the captain sent for Jason and Kerk. Kerk took the floor and was completely frank about the previous night's activities. The only fact of importance he left out was Jason's background as a professional gambler. He drew a beautiful picture of two lucky strangers whom the evil forces of Cassylia wanted to deprive of their gambling profits. All this fitted perfectly the captain's preconceptions of Cassylia. In the end he congratulated his officer on the correctness of his actions and began the preparation of a long report to his government. He gave the two men his best wishes as well as the liberty of the ship.

It was a short trip. Jason barely had time to catch up on his sleep before they grounded on Darkhan. Being without luggage they were the first ones through customs. They left the shed just in time to see another ship landing in a distant pit. Kerk stopped to watch it and Jason followed his gaze. It was a gray, scarred ship. With the stubby lines of a freighter—but sporting as many guns as a cruiser.

"Yours, of course," Jason said.

Kerk nodded and started towards the ship. One of the locks opened as they came up but no one appeared. Instead a remote-release folding ladder rattled down to the ground. Kerk swarmed up it and Jason followed glumly. Somehow, he felt, this was overdoing the no-frills-and-nonsense attitude.

Jason was catching on to Pyrran ways though. The reception aboard ship for the ambassador was just what he expected. Nothing. Kerk closed the lock himself and they found couches as the take-off horn sounded. The main jets roared and acceleration smashed down on Jason.

It didn't stop. Instead it grew stronger, squeezing the air out of his lungs and the sight from his eyes. He screamed but couldn't hear his own voice through the roaring in his ears. Mercifully he blacked out.

When consciousness returned the ship was at zero-G. Jason kept his eyes closed and let the pain seep out of his body. Kerk spoke suddenly, he was standing next to the couch.

"My fault, Meta, I should have told you we had a 1-G passenger aboard. You might have eased up a bit on your usual bone-breaking take-off."

"It doesn't seem to have harmed him much—but what's he doing here?"

Jason felt mild surprise that the second voice was a girl's. But he wasn't interested enough to go to the trouble of opening his sore eyes.

"Going to Pyrrus. I tried to talk him out of it, of course, but I couldn't change his mind. It's a shame, too, I would like to have done more for him. He's the one who got the money for us."

"Oh, that's awful," the girl said. Jason wondered why it was *awful*. It didn't make sense to his groggy mind. "It would have been much better if he stayed on Darkhan," the girl continued. "He's very nice-looking. I think it's a shame he has to die."

That was too much for Jason. He pried one eye open, then the other. The voice belonged to a girl about twenty-one who was standing next to the bed, gazing down at Jason. She was beautiful.

Jason's eyes opened wider as he realized she was *very* beautiful—with the kind of beauty never found in the civilized galaxy. The women he had known all ran to pale skin, hollow shoulders, gray faces covered with tints and dyes. They were the product of centuries of breeding weaknesses back into the race, as the advance of medicine kept alive more and more non-survival types.

This girl was the direct opposite in every way. She was the product of survival on Pyrrus. The heavy gravity that produced bulging muscles in men, brought out firm strength in straplike female muscles. She had the figure of a goddess, tanned skin and perfectly formed face. Her hair, which was cut short, circled her head like a golden crown. The only unfeminine thing about her was the gun she wore in a bulky forearm holster. When she saw Jason's eyes open she smiled at him. Her teeth were as even and as white as he had expected.

"I'm Meta, pilot of this ship. And you must be—"

"Jason dinAlt. That was a lousy take-off, Meta."

"I'm really very sorry," she laughed. "But being born on a two-G planet does make one a little immune to acceleration. I save fuel too, with the synergy curve—"

Kerk gave a noncommittal grunt. "Come along, Meta, we'll take a look at the cargo. Some of the new stuff will plug the gaps in the perimeter."

"Oh yes," she said, almost clapping her hands with happiness. "I read the specs, they're simply wonderful."

Like a schoolgirl with a new dress. Or a box of candy. That's a great attitude to have towards bombs and flame-throwers. Jason smiled wryly at the thought as he groaned off the couch. The two Pyrrans had gone and he pulled himself painfully through the door after them.

It took him a long time to find his way to the hold. The ship was big and apparently empty of crew. Jason finally found a man sleeping in one of the brightly lit cabins. He recognized him as the driver who had turned the car over to them on Cassylia. The man, who had been sleeping soundly a moment before, opened his eyes as soon as Jason drifted into the room. He was wide awake.

"How do I get to the cargo hold?" Jason asked.

The other told him, closed his eyes and went instantly back to sleep before Jason could even say thanks.

In the hold, Kerk and Meta had opened some of the crates and were chortling with joy over their lethal contents. Meta, a pressure canister in her arms, turned to Jason as he came through the door.

"Just look at this," she said. "This powder in here—why you can eat it like dirt, with less harm. Yet it is instantly deadly to all forms of vegetable life ..." She stopped suddenly as she realized Jason didn't share her extreme pleasure. "I'm sorry. I forgot for a moment there that you weren't a Pyrran. So you don't really understand, do you?"

Before he could answer, the PA speaker called her name.

"Jump time," she said. "Come with me to the bridge while I do the equations. We can talk there. I know so little about any place except Pyrrus that I have a million questions to ask."

Jason followed her to the bridge where she relieved the duty officer and began taking readings for the jump-setting. She looked out of place among the machines, a sturdy but supple figure in a simple, one-piece shipsuit. Yet there was no denying the efficiency with which she went about her job.

"Meta, aren't you a little young to be the pilot of an interstellar ship?"

"Am I?" She thought for a second. "I really don't know how old pilots are supposed to be. I have been piloting for about three years now and I'm almost twenty. Is that younger than usual?"

Jason opened his mouth—then laughed. "I suppose that all depends on

what planet you're from. Some places you would have trouble getting licensed. But I'll bet things are different on Pyrrus. By their standards you must rank as an old lady."

"Now you're making a joke," Meta said serenely as she fed a figure into the calculator. "I've seen old ladies on some planets. They are wrinkled and have gray hair. I don't know how old they are, I asked one but she wouldn't tell me her age. But I'm sure they must be older than anyone on Pyrrus, no one looks like that there."

"I don't mean old that way," Jason groped for the right word. "Not old—but grown-up, mature. An adult."

"Everyone is grown-up," she answered. "At least soon after they leave the wards. And they do that when they're six. My first child is grown-up, and the second one would be, too, only he's dead. So I *surely* must be."

That seemed to settle the question for her, though Jason's thoughts jumped with the alien concepts and background, inherent behind her words.

Meta punched in the last setting, and the course tape began to chunk out of the case. She turned her attention back to Jason. "I'm glad you're aboard this trip, though I am sorry you are going to Pyrrus. But we'll have lots of time to talk. There are so many things I want to find out about other planets, and why people go around acting the way they do. Not at all like home where you *know* why people are doing things all the time." She frowned over the tape for a moment, then turned her attention back to Jason. "What is your home planet like?"

One after another the usual lies he told people came to his lips, and were pushed away. Why bother lying to a girl who really didn't care if you were serf or noble? To her there were only two kinds of people in the galaxy—Pyrrans, and the rest. For the first time since he had fled from Porgorstorsaand he found himself telling someone the truth of his origin.

"My home planet? Just about the stuffiest, dullest, dead-end in the universe. You can't believe the destructive decay of a planet that is mainly agrarian, caste-conscious and completely satisfied with its own boring existence. Not only is there no change—but no one *wants* change. My father was a farmer, so I should have been a farmer too—if I had listened to the advice

of my betters. It was unthinkable, as well as forbidden for me to do anything else. And everything I wanted to do was against the law. I was fifteen before I learned to read—out of a book stolen from a noble school. After that there was no turning back. By the time I stowed aboard an off-world freighter at nineteen I must have broken every law on the planet. Happily. Leaving home for me was just like getting out of prison."

Meta shook her head at the thought. "I just can't imagine a place like that. But I'm sure I wouldn't like it there."

"I'm sure you wouldn't," Jason laughed. "So once I was in space, with no law-abiding talents or skills, I just wandered into one thing and another. In this age of technology I was completely out of place. Oh, I suppose I could have done well in some army, but I'm not so good at taking orders. Whenever I gambled I did well, so little by little I just drifted into it. People are the same everywhere, so I manage to make out well wherever I end up."

"I know what you mean about people being alike—but they are so *different*," she said. "I'm not being clear at all, am I? What I mean is that at home I know what people will do and why they do it at the same time. People on all the other planets do act alike, as you said, yet I have very much trouble understanding why. For instance, I like to try the local food when we set down on a planet, and if there is time I always do. There are bars and restaurants near every spaceport so I go there. And I always have trouble with the men. They want to buy me drinks, hold my hand—"

"Well, a single girl in those port joints has to expect a certain amount of interest from the men."

"Oh, I know that," she said. "What I don't understand is why they don't listen when I tell them I am not interested and to go away. They just laugh and pull up a chair, usually. But I have found that one thing works wherever I am. I tell them if they don't stop bothering me I'll break their arm."

"Does that stop them?" Jason asked.

"No, of course not. But after I break their arm they go away. And the others don't bother me either. It's a lot of fuss to go through and the food is usually awful."

Jason didn't laugh. Particularly when he realized that this girl *could* break the arm of any spaceport thug in the galaxy. She was a strange mixture of

naivete and strength, unlike anyone he had ever met before. Once again he realized that he *had* to visit the planet that produced people like her and Kerk.

"Tell me about Pyrrus," he asked. "Why is it that you and Kerk assume automatically that I will drop dead as soon as I land? What is the planet like?"

All the warmth was gone from her face now. "I can't tell you. You will have to see for yourself. I know that much after visiting some of the other worlds. Pyrrus is like nothing you galaxy people have ever experienced. You won't really believe it until it is too late. Will you promise me something?"

"No," he answered. "At least not until after I hear what it is and decide."

"Don't leave the ship when we land. You *should* be safe enough aboard, and I'll be flying a cargo out within a few weeks."

"I'll promise nothing of the sort. I'll leave when I want to leave." Jason knew there was logic in her words, but his back was up at her automatic superiority.

Meta finished the jump settings without another word. There was a tension in the room that prevented them both from talking.

It was the next shipday before he saw her again, then it was completely by accident. She was in the astrogation dome when he entered, looking up at the sparkling immensity of the jump sky. For the first time he saw her off duty, wearing something other than a shipsuit. This was a loose, soft robe that accentuated her beauty.

She smiled at him. "The stars are so wonderful," she said. "Come look." Jason came close to her and with an unthinking, almost automatic movement, put his arm around her. Neither did she resent it, for she covered his hand with hers. Then they kissed and it was just the way he knew it would be.

VI.

After that they were together constantly. When Meta was on duty he brought her meals to the bridge and they talked. Jason learned little more about her world since, by unspoken agreement, they didn't discuss it. He talked of the many planets he had visited and the people he had known. She was an appreciative listener and the time went quickly by. They enjoyed each other's company and it was a wonderful trip.

Then it ended.

There were fourteen people aboard the ship, yet Jason had never seen more than two or three at a time. There was a fixed rotation of duties that they followed in the ship's operation. When not on duty the Pyrrans minded their own business in an intense and self-sufficient manner. Only when the ship came out of jump and the PA barked *assembly* did they all get together.

Kerk was giving orders for the landing and questions were snapped back and forth. It was all technical and Jason didn't bother following it. It was the attitude of the Pyrrans that drew his attention. Their talk tended to be faster now as were their motions. They were like soldiers preparing for battle.

Their sameness struck Jason for the first time. Not that they looked alike or did the same things. It was the *way* they moved and reacted that caused the striking similarity. They were like great, stalking cats. Walking fast, tense and ready to spring at all times, their eyes never still for an instant.

Jason tried to talk to Meta after the meeting, but she was almost a stranger. She answered in monosyllables and her eyes never met his, just brushed over them and went on. There was nothing he could really say so she moved to leave. He started to put his hand out to stop her—then thought better of it. There would be other times to talk.

Kerk was the only one who took any notice of him—and then only to order him to an acceleration couch.

Meta's landings were infinitely worse than her take-offs. At least when she landed on Pyrrus. There were sudden acceleration surges in every direction. At one point there was a free fall that seemed endless. There were loud thuds against the hull that shook the framework of the ship. It was more like a battle than a landing, and Jason wondered how much truth there was in that.

When the ship finally landed Jason didn't even know it. The constant 2 G's felt like deceleration. Only the descending moan of the ship's engines convinced him they were down. Unbuckling the straps and sitting up was an effort.

Two G's don't seem that bad—at first. Walking required the same exertion as would carrying a man of his own weight on his shoulders. When Jason lifted his arm to unlatch the door it was heavy as two arms. He shuffled slowly towards the main lock.



They were all there ahead of him, two of the men rolling transparent cylinders from a nearby room. From their obvious weight and the way they clanged when they bumped, Jason knew they were made of transparent metal. He couldn't conceive any possible use for them. Empty cylinders a meter in diameter, longer than a man. One end solid, the other hinged and sealed. It wasn't until Kerk spun the sealing wheel and opened one of them that their use became apparent.

"Get in," Kerk said. "When you're locked inside you'll be carried out of the ship."

"Thank you, no," Jason told him. "I have no particular desire to make a spectacular landing on your planet sealed up like a packaged sausage."

"Don't be a fool," was Kerk's snapped answer. "We're *all* going out in these tubes. We've been away too long to risk the surface without reorientation."

Jason did feel a little foolish as he saw the others getting into tubes. He picked the nearest one, slid into it feet first, and pulled the lid closed. When he tightened the wheel in the center, it squeezed down against a flexible seal. Within a minute the CO_2 content in the closed cylinder went up and an air regenerator at the bottom hummed into life.

Kerk was the last one in. He checked the seals on all the other tubes first, then jabbed the air-lock override release. As it started cycling he quickly sealed himself in the remaining cylinder. Both inner and outer locks ground slowly open and dim light filtered in through sheets of falling rain.

For Jason, the whole thing seemed an anticlimax. All this preparation for absolutely nothing. Long, impatient minutes passed before a lift truck appeared driven by a Pyrran. He loaded the cylinders onto his truck like so much dead cargo. Jason had the misfortune to be buried at the bottom of the pile so he could see absolutely nothing when they drove outside.

It wasn't until the man-carrying cylinders had been dumped in a metal-walled room, that Jason saw his first native Pyrran life.

The lift truck driver was swinging a thick outer door shut when something flew in through the entrance and struck against the far wall. Jason's eye was caught by the motion, he looked to see what it was when it dropped straight down towards his face.

Forgetful of the metal cylinder wall, he flinched away. The creature struck the transparent metal and clung to it. Jason had the perfect opportunity to examine it in every detail.

It was almost too horrible to be believable. As though it were a bearer of death stripped to the very essentials. A mouth that split the head in two, rows of teeth, serrated and pointed. Leathery, claw-tipped wings, longer claws on the limbs that tore at the metal wall.

Terror rose up in Jason as he saw that the claws were tearing gouges in the transparent metal. Wherever the creature's saliva touched the metal clouded and chipped under the assault of the teeth.

Logic said these were just scratches on the thick tube. They couldn't matter. But blind, unreasoning fear sent Jason curling away as far as he could. Shrinking inside himself, seeking escape.

Only when the flying creature began dissolving did he realize the nature of the room outside. Sprays of steaming liquid came from all sides, raining down until the cylinders were covered. After one last clash of its jaws, the Pyrran animal was washed off and carried away. The liquid drained away through the floor and a second and third shower followed.

While the solutions were being pumped away, Jason fought to bring his emotions into line. He was surprised at himself. No matter how frightful the creature had been, he couldn't understand the fear it could generate through the wall of the sealed tube. His reaction was all out of proportion to the cause. Even with the creature destroyed and washed out of sight it took all of his will power to steady his nerves and bring his breathing back to normal.

Meta walked by outside and he realized the sterilization process was finished. He opened his own tube and climbed wearily out. Meta and the others had gone by this time and only a hawk-faced stranger remained, waiting for him.

"I'm Brucco, in charge of the adaptation clinic. Kerk told me who you were. I'm sorry you're here. Now come along, I want some blood samples."

"Now I feel right at home," Jason said. "The old Pyrran hospitality." Brucco only grunted and stamped out. Jason followed him down a bare corridor into a sterile lab.

The double gravity was tiring, a constant drag on sore muscles. While Brucco ran tests on the blood sample, Jason rested. He had almost dozed off into a painful sleep when Brucco returned with a tray of bottles and hypodermic needles.

"Amazing," he announced. "Not an antibody in your serum that would be of any use on this planet. I have a batch of antigens here that will make you sick as a beast for at least a day. Take off your shirt."

"Have you done this often?" Jason asked. "I mean juice up an outlander so he can enjoy the pleasures of your world?"

Brucco jammed in a needle that felt like it grated on the bone. "Not often at all. Last time was years ago. A half-dozen researchers from some institute, willing to pay well for the chance to study the local life forms. We didn't say no. Always need more galaxy currency."

Jason was already beginning to feel light-headed from the shots. "How many of them lived?" he mumbled vaguely.

"One. We got him off in time. Made them pay in advance of course."

At first Jason thought the Pyrran was joking. Then he remembered they had very little interest in humor of any kind. If one-half of what Meta and Kerk had told him was true, six to one odds weren't bad at all.

There was a bed in the next room and Brucco helped him to it. Jason felt drugged and probably was. He fell into a deep sleep and into the dream.

Fear and hatred mixed in equal parts and washed over him red hot. If this was a dream, he never wanted to sleep again. If it wasn't a dream, he wanted to die. He tried to fight up against it, but only sank in more deeply. There was no beginning and no end to the fear and no way to escape.

When consciousness returned Jason could remember no detail of the nightmare. Just the fear remained. He was soaked with sweat and ached in every muscle. It must have been the massive dose of shots, he finally decided, that and the brutal gravity. That didn't take the taste of fear out of his mouth, though.

Brucco stuck his head in the door then and looked Jason up and down. "Thought you were dead," he said. "Slept the clock around. Don't move, I'll get something to pick you up."

The pickup was in the form of another needle and a glassful of evil-looking fluid. It settled his thirst, but made him painfully aware of gnawing hunger.

"Want to eat?" Brucco asked. "I'll bet you do. I've speeded up your metabolism so you'll build muscle faster. Only way you'll ever beat the gravity. Give you quite an appetite for a while though."

Brucco ate at the same time and Jason had a chance to ask some questions. "When do I get a chance to look around your fascinating planet? So far this trip has been about as interesting as a jail term."

"Relax and enjoy your food. Probably be months before you're able to go outside. If at all."

Jason felt his jaw hanging and closed it with a snap. "Could you possibly tell me why?"

"Of course. You will have to go through the same training course that our children take. It takes them six years. Of course it's their first six years of life. So you might think that you, as an adult, could learn faster. Then again they have the advantage of heredity. All I can say is you'll go outside these sealed buildings when you're ready."

Brucco had finished eating while he talked, and sat staring at Jason's bare arms with growing disgust. "The first thing we want to get you is a gun," he said. "It gives me a sick feeling to see someone without one."

Of course Brucco wore his own gun continually, even within the sealed buildings.

"Every gun is fitted to its owner and would be useless on anyone else," Brucco said. "I'll show you why." He led Jason to an armory jammed with deadly weapons. "Put your arm in this while I make the adjustments."

It was a boxlike machine with a pistol grip on the side. Jason clutched the grip and rested his elbow on a metal loop. Brucco fixed pointers that touched his arm, then copied the results from the meters. Reading the figures from his list he selected various components from bins and quickly assembled a power holster and gun. With the holster strapped to his forearm and the gun in his hand, Jason noticed for the first time they were connected by a flexible cable. The gun fitted his hand perfectly.

"This is the secret of the power holster," Brucco said, tapping the flexible cable. "It is perfectly loose while you are using the weapon. But when you want it returned to the holster—" Brucco made an adjustment and the cable became a stiff rod that whipped the gun from Jason's hand and suspended it in midair.

"Then the return." The rod-cable whirred and snapped the gun back into the holster. "The drawing action is the opposite of this, of course."

"A great gadget," Jason said, "but how *do* I draw? Do I whistle or something for the gun to pop out?"

"No, it is not sonic control," Brucco answered with a sober face. "It is much

more precise than that. Here, take your left hand and grasp an imaginary gun butt. Tense your trigger finger. Do you notice the pattern of the tendons in the wrist? Sensitive actuators touch the tendons in your right wrist. They ignore all patterns except the one that says *hand ready to receive gun*. After a time the mechanism becomes completely automatic. When you want the gun—it is in your hand. When you don't—it is in the holster."

Jason made grasping motions with his right hand, crooked his index finger. There was a sudden, smashing pain against his hand and a loud roar. The gun was in his hand—half the fingers were numb—and smoke curled up from the barrel.

"Of course there are only blank charges in the gun until you learn control. Guns are *always* loaded. There is no safety. Notice the lack of a trigger guard. That enables you to bend your trigger finger a slight bit more when drawing so the gun will fire the instant it touches your hand."

It was without a doubt the most murderous weapon Jason had ever handled, as well as being the hardest to manage. Working against the muscle-burning ache of high gravity, he fought to control the devilish device. It had an infuriating way of vanishing into the holster just as he was about to pull the trigger. Even worse was the tendency to leap out before he was quite ready. The gun went to the position where his hand should be. If the fingers weren't correctly placed, they were crashed aside. Jason only stopped the practice when his entire hand was one livid bruise.

Complete mastery would come with time, but he could already understand why the Pyrrans never removed their guns. It would be like removing a part of your own body. The movement of gun from holster to hand was too fast for him to detect. It was certainly faster than the neural current that shaped the hand into the gun-holding position. For all apparent purposes it was like having a lightning bolt in your fingertip. Point the finger and *blamm*, there's the explosion.

Brucco had left Jason to practice alone. When his aching hand could take no more, he stopped and headed back towards his own quarters. Turning a corner he had a quick glimpse of a familiar figure going away from him.

"Meta! Wait for a second—I want to talk to you."

She turned impatiently as he shuffled up, going as fast as he could in the doubled gravity. Everything about her seemed different from the girl he had known on the ship. Heavy boots came as high as her knees, her figure was lost in bulky coveralls of some metallic fabric. The trim waist was bulged out by a belt of canisters. Her very expression was coldly distant.

"I've missed you," he said. "I hadn't realized you were in this building." He reached for her hand but she moved it out of his reach.

"What is it you want?" she asked.

"What is it I want!" he echoed with barely concealed anger. "This is Jason, remember me? We're friends. It *is* allowed for friends to talk without 'wanting' anything."

"What happened on the ship has nothing to do with what happens on Pyrrus." She started forward impatiently as she talked. "I have finished my reconditioning and must return to work. You'll be staying here in the sealed buildings so I won't be seeing you."

"Why don't you say 'with the rest of the children'—that's what your tone implies? And don't try walking out, there are some things we have to settle first —"

Jason made the mistake of putting out his hand to stop her. He didn't really know what happened next. One instant he was standing—the next he sprawled suddenly on the floor. His shoulder was badly bruised, and Meta had vanished down the corridor.

Limping back to his own room he cursed women in general and Meta in particular. Dropping onto his rock-hard bed he tried to remember the reasons that had brought him here in the first place. And weighed them against the perpetual torture of the gravity, the fear-filled dreams it inspired, the automatic contempt of these people for any outsider. He quickly checked the growing tendency to feel sorry for himself. By Pyrran standards he *was* soft and helpless. If he wanted them to think any better of him, he would have to change a good deal.

He sank into a fatigue-drugged sleep then, that was broken only by the screaming fear of his dreams.

VII.

In the morning Jason awoke with a bad headache and the feeling he had never been to sleep. As he took some of the carefully portioned stimulants that Brucco had given him, he wondered again about the combination of factors that filled his sleep with such horror.

"Eat quickly," Brucco told him when they met in the dining room. "I can no longer spare you time for individual instruction. You will join the regular classes and take the prescribed courses. Only come to me if there is some special problem that the instructors or trainers can't handle."

The classes—as Jason should have expected—were composed of stern-faced little children. With their compact bodies and no-nonsense mannerisms they were recognizably Pyrran. But they were still children enough to consider it very funny to have an adult in their classes. Jammed behind one of the tiny desks, the red-faced Jason did not think it was much of a joke.

All resemblance to a normal school ended with the physical form of the classroom. For one thing, every child—no matter how small—packed a gun. And the courses were all involved with survival. The only possible grade in a curriculum like this was one hundred per cent and students stayed with a lesson until they mastered it perfectly. No courses were offered in the normal scholastic subjects. Presumably these were studied after the child graduated survival school and could face the world alone. Which was a logical and cold-hearted way of looking at things. In fact, logical and cold-hearted could describe any Pyrran activity.

Most of the morning was spent on the operation of one of the medikits that strapped around the waist. This was a poison analyzer that was pressed over a puncture wound. If any toxins were present, the antidote was automatically injected on the site. Simple in operation but incredibly complex in construction. Since all Pyrrans serviced their own equipment—you could then only blame yourself if it failed—they had to learn the construction and repair of all the devices. Jason did much better than the child students, though the effort exhausted him.

In the afternoon he had his first experience with a training machine. His instructor was a twelve-year-old boy, whose cold voice didn't conceal his

contempt for the soft off-worlder.

"All the training machines are physical duplicates of the real surface of the planet, corrected constantly as the life forms change. The only difference between them is the varying degree of deadliness. This first machine you will use is of course the one infants are put into—"

"You're too kind," Jason murmured. "Your flattery overwhelms me." The instructor continued, taking no notice of the interruption.

"... Infants are put into as soon as they can crawl. It is real in substance, though completely deactivated."

Training machine was the wrong word, Jason realized as they entered through the thick door. This was a chunk of the outside world duplicated in an immense chamber. It took very little suspension of reality for him to forget the painted ceiling and artificial sun high above and imagine himself outdoors at last. The scene *seemed* peaceful enough. Though clouds banking on the horizon threatened a violent Pyrran storm.

"You must wander around and examine things," the instructor told Jason. "Whenever you touch something with your hand, you will be told about it. Like this—"

The boy bent over and pushed his finger against a blade of the soft grass that covered the ground. Immediately a voice barked from hidden speakers.

"Poison grass. Boots to be worn at all times."

Jason kneeled and examined the grass. The blade was tipped with a hard, shiny hook. He realized with a start that every single blade of grass was the same. The soft green lawn was a carpet of death. As he straightened up he glimpsed something under a broad-leafed plant. A crouching, scale-covered animal, whose tapered head terminated in a long spike.

"What's *that* in the bottom of my garden?" he asked. "You certainly give the babies pleasant playmates." Jason turned and realized he was talking to the air, the instructor was gone. He shrugged and petted the scaly monstrosity.

"Horndevil," the impersonal voice said from midair. "Clothing and shoes no protection. Kill it."

A sharp *crack* shattered the silence as Jason's gun went off. The horndevil fell on its side, keyed to react to the blank charge.

"Well ... I *am* learning," Jason said, and the thought pleased him. The words *kill it* had been used by Brucco while teaching him to use the gun. Their stimulus had reached an unconscious level. He was aware of wanting to shoot only after he had heard the shot. His respect for Pyrran training techniques went up.

Jason spent a thoroughly unpleasant afternoon wandering in the child's garden of horror. Death was everywhere. While all the time the disembodied voice gave him stern advice in simple language. So he could do unto, rather than being done in. He had never realized that violent death could come in so many repulsive forms. *Everything* here was deadly to man—from the smallest insect to the largest plant.

Such singleness of purpose seemed completely unnatural. Why was this planet so alien to human life? He made a mental note to ask Brucco. Meanwhile he tried to find one life form that wasn't out for his blood. He didn't succeed. After a long search he found the only thing that when touched didn't elicit deadly advice. This was a chunk of rock that projected from a meadow of poison grass. Jason sat on it with a friendly feeling and pulled his feet up. An oasis of peace. Some minutes passed while he rested his gravity-weary body.

"ROTFUNGUS—DO NOT TOUCH!"

The voice blasted at twice its normal volume and Jason leaped as if he had been shot. The gun was in his hand, nosing about for a target. Only when he bent over and looked closely at the rock where he had been sitting, did he understand. There were flaky gray patches that hadn't been there when he sat down.

"Oh you tricky devils!" he shouted at the machine. "How many kids have you frightened off that rock after they thought they had found a little peace!" He resented the snide bit of conditioning, but respected it at the same time. Pyrrans learned very early in life that there was no safety on this planet—except that which they provided for themselves.

While he was learning about Pyrrus he was gaining new insight into the Pyrrans as well.

VIII.

Days turned into weeks in the school, cut off from the world outside. Jason almost became proud of his ability to deal death. He recognized all the animals and plants in the nursery room and had been promoted to a trainer where the beasts made sluggish charges at him. His gun picked off the attackers with dull regularity. The constant, daily classes were beginning to bore him as well.

Though the gravity still dragged at him, his muscles were making great efforts to adjust. After the daily classes he no longer collapsed immediately into bed. Only the nightmares got worse. He had finally mentioned them to Brucco, who mixed up a sleeping potion that took away most of their effect. The dreams were still there, but Jason was only vaguely aware of them upon awakening.

By the time Jason had mastered all the gadgetry that kept the Pyrrans alive, he had graduated to a most realistic trainer that was only a hair-breadth away from the real thing. The difference was just in quality. The insect poisons caused swelling and pain instead of instant death. Animals could cause bruises and tear flesh, but stopped short of ripping off limbs. You couldn't get killed in this trainer, but could certainly come very close to it.

Jason wandered through this large and rambling jungle with the rest of the five-year-olds. There was something a bit humorous, yet sad, about their unchildlike grimness. Though they still might laugh in their quarters, they realized there was no laughing outside. To them survival was linked up with social acceptance and desirability. In this way Pyrrus was a simple black-and-white society. To prove your value to yourself and your world, you only had to stay alive. This had great importance in racial survival, but had very stultifying effects on individual personality. Children were turned into like-faced killers, always on the alert to deal out death.

Some of the children graduated into the outside world and others took their places. Jason watched this process for a while before he realized that all of those from the original group he had entered with were gone. That same day he looked up the chief of the adaptation center.

"Brucco," Jason asked, "how long do you plan to keep me in this kindergarten shooting gallery?"

"You're not being 'kept' here," Brucco told him in his usual irritated tone.

"You will be here until you qualify for the outside."



"Which I have a funny feeling will be never. I can now field strip and reassemble every one of your blasted gadgets in the dark. I am a dead shot with this cannon. At this present moment, if I had to, I could write a book on the Complete Flora and Fauna of Pyrrus, and How to Kill It. Perhaps I don't do as well as my six-year-old companions, but I have a hunch I do about as good a job now as I ever will. Is that true?"

Brucco squirmed with the effort to be evasive, yet didn't succeed. "I think, that is, you know you weren't born here, and—"

"Come, come," Jason said with glee, "a straight-faced old Pyrran like you shouldn't try to lie to one of the weaker races that specialize in that sort of thing. It goes without saying that I'll always be sluggish with this gravity, as well as having other inborn handicaps. I admit that. We're not talking about that now. The question is—will I improve with more training, or have I reached a peak of my own *development* now?"

Brucco sweated. "With the passage of time there will be improvement of course—"

"Sly devil!" Jason waggled a finger at him. "Yes or no, now. Will I improve *now* by more training *now*?"

"No," Brucco said, and still looked troubled. Jason sized him up like a poker hand.

"Now let's think about that. I won't improve—yet I'm still stuck here. That's no accident. So you must have been ordered to keep me here. And from what I

have seen of this planet, admittedly very little, I would say that Kerk ordered you to keep me here. Is that right?"

"He was only doing it for your own sake," Brucco explained, "trying to keep you alive."

"The truth is out," Jason said, "so let us now forget about it. I didn't come here to shoot robots with your offspring. So please show me the street door. Or is there a graduating ceremony first? Speeches, handing out school pins, sabers overhead—"

"Nothing like that," Brucco snapped. "I don't see how a grown man like you can talk such nonsense all the time. There is none of that, of course. Only some final work in the partial survival chamber. That is a compound that connects with the outside—really is a part of the outside—except the most violent life forms are excluded. And even some of those manage to find their way in once in a while."

"When do I go?" Jason shot the question.

"Tomorrow morning. Get a good night's sleep first. You'll need it."

There was one bit of ceremony attendant with the graduation. When Jason came into his office in the morning, Brucco slid a heavy gun clip across the table.

"These are live bullets," he said. "I'm sure you'll be needing them. After this your gun will always be loaded."

They came up to a heavy air lock, the only locked door Jason had seen in the center. While Brucco unlocked it and threw the bolts, a sober-faced eight-year-old with a bandaged leg limped up.

"This is Grif," Brucco said. "He will stay with you, wherever you go, from now on."

"My personal bodyguard?" Jason asked, looking down at the stocky child who barely reached his waist.

"You might call him that." Brucco swung the door open. "Grif tangled with a sawbird, so he won't be able to do any real work for a while. You yourself admitted that you will never be able to equal a Pyrran, so you should be glad of a little protection."

"Always a kind word, that's you, Brucco," Jason said. He bent over and

shook hands with the boy. Even the eight-year-olds had a bone-crushing grip.

The two of them entered the lock and Brucco swung the inner door shut behind them. As soon as it was sealed the outer door opened automatically. It was only partly open when Grif's gun blasted twice. Then they stepped out onto the surface of Pyrrus, over the smoking body of one of its animals.

Very symbolic, Jason thought. He was also bothered by the realization that he hadn't remembered to look for something coming in. Then, too, he couldn't even identify the beast from its charred remains. He glanced around, hoping he would be able to fire first himself, next time.

This was an unfulfilled hope. The few beasts that came their way were always seen first by the boy. After an hour of this, Jason was so irritated that he blasted an evil-looking thorn plant out of existence. He hoped that Grif wouldn't look too closely at it. Of course the boy did.

"That plant wasn't close. It is stupid to waste good ammunition on a plant," Grif said.

There was no real trouble during the day. Jason ended by being bored, though soaked by the frequent rainstorms. If Grif was capable of carrying on a conversation, he didn't show it. All Jason's gambits failed. The following day went the same way. On the third day, Brucco appeared and looked Jason carefully up and down.

"I don't like to say it, but I suppose you are as ready to leave now as you ever will be. Change the virus filter noseplugs every day. Always check boots for tears and metalcloth suiting for rips. Medikit supplies renewed once a week."

"And wipe my nose and wear my galoshes. Anything else?" Jason asked.

Brucco started to say something, then changed his mind. "Nothing that you shouldn't know well by now. Keep alert. And ... good luck." He followed up the words with a crushing handshake that was totally unexpected. As soon as the numbness left Jason's hand, he and Grif went out through the large entrance lock.

IX.

Real as they had been, the training chambers had not prepared him for the surface of Pyrrus. There was the basic similarity of course. The feel of the poison grass underfoot and the erratic flight of a stingwing in the last instant before Grif blasted it. But these were scarcely noticeable in the crash of the elements around him.

A heavy rain was falling, more like a sheet of water than individual drops. Gusts of wind tore at it, hurling the deluge into his face. He wiped his eyes clear and could barely make out the conical forms of two volcanoes on the horizon, vomiting out clouds of smoke and flame. The reflection of this inferno was a sullen redness on the clouds that raced by in banks above them.

There was a rattle on his hard hat and something bounced off to splash to the ground. He bent over and picked up a hailstone as thick as his thumb. A sudden flurry of hail hammered painfully at his back and neck, he straightened hurriedly.

As quickly as it started the storm was over. The sun burned down, melting the hailstones and sending curls of steam up from the wet street. Jason sweated inside his armored clothing. Yet before they had gone a block it was raining again and he shook with chill.

Grif trudged steadily along, indifferent to the weather or the volcanoes that rumbled on the horizon and shook the ground beneath their feet. Jason tried to ignore his discomfort and match the boy's pace.

The walk was a depressing one. The heavy, squat buildings loomed grayly through the rain, more than half of them in ruins. They walked on a pedestrian way in the middle of the street. The occasional armored trucks went by on both sides of them. The midstreet sidewalk puzzled Jason until Grif blasted something that hurtled out of a ruined building towards them. The central location gave them some chance to see what was coming. Suddenly Jason was very tired.

"Grif, this city of yours is sure down at the heels. I hope the other ones are in better shape."

"I don't know what you mean talking about heels. But there are no other cities. Some mining camps that can't be located inside the perimeter. But no

other cities."

This surprised Jason. He had always visualized the planet with more than one city. There were a *lot* of things he didn't know about Pyrrus, he realized suddenly. All of his efforts since landing had been taken up with the survival studies. There were a number of questions he wanted to ask. But ask them of somebody other than his grouchy eight-year-old bodyguard. There was one person who would be best equipped to tell him what he wanted to know.

"Do you know Kerk?" he asked the boy. "Apparently he's your ambassador to a lot of places, but his last name—"

"Sure, everybody knows Kerk. But he's busy, you shouldn't see him."

Jason shook a finger at him. "Minder of my body you may be. But minder of my soul you are not. What do you say I call the shots and you go along to shoot the monsters? O.K.?"

They took shelter from a sudden storm of fist-sized hailstones. Then, with ill grace, Grif led the way to one of the larger, central buildings. There were more people here and some of them even glanced at Jason for a minute, before turning back to their business. Jason dragged himself up two flights of stairs before they reached a door marked CO-ORDINATION AND SUPPLY.

"Kerk in here?" Jason asked.

"Sure," the boy told him. "He's in charge."

"Fine. Now you get a nice cold drink, or your lunch, or something, and meet me back here in a couple of hours. I imagine Kerk can do as good a job of looking after me as you can."

The boy stood doubtfully for a few seconds, then turned away. Jason wiped off some more sweat and pushed through the door.

There were a handful of people in the office beyond. None of them looked up at Jason or asked his business. Everything has a purpose on Pyrrus. If he came there—he must have had a good reason. No one would ever think to ask him what he wanted. Jason, used to the petty officialdom of a thousand worlds, waited for a few moments before he understood. There was only one other door. He shuffled over and opened it.

Kerk looked up from a desk strewed about with papers and ledgers. "I was wondering when you would show up," he said.

"A lot sooner if you hadn't prevented it," Jason told him as he dropped wearily into a chair. "It finally dawned on me that I could spend the rest of my life in your blood-thirsty nursery school if I didn't do something about it. So here I am."

"Ready to return to the 'civilized' worlds, now that you've seen enough of Pyrrus?"

"I am not," Jason said. "And I'm getting very tired of everyone telling me to leave. I'm beginning to think that you and the rest of the Pyrrans are trying to hide something."

Kerk smiled at the thought. "What could we have to hide? I doubt if any planet has as simple and one-directional an existence as ours."

"If that's true, then you certainly wouldn't mind answering a few direct questions about Pyrrus?"

Kerk started to protest, then laughed. "Well done. I should know better by now than to argue with you. What do you want to know?"

Jason tried to find a comfortable position on the hard chair, then gave up. "What's the population of your planet?" he asked.

For a second Kerk hesitated, then said, "Roughly thirty thousand. That is not very much for a planet that has been settled this long, but the reason for that is obvious."

"All right, population thirty thousand," Jason said. "Now how about surface control of your planet. I was surprised to find out that this city within its protective wall—the perimeter—is the only one on the planet. Let's not consider the mining camps, since they are obviously just extensions of the city. Would you say then, that you people control more or less of the planet's surface than you did in the past?"

Kerk picked up a length of steel pipe from the desk, that he used as a paperweight, and toyed with it as he thought. The thick steel bent like rubber at his touch, as he concentrated on his answer.

"That's hard to say offhand. There must be records of that sort of thing, though I wouldn't know where to find them. It depends on so many factors—"

"Let's forget that for now then," Jason said. "I have another question that's really more relevant. Wouldn't you say that the population of Pyrrus is declining

steadily, year after year?"

There was a sharp *twang* as the steel snapped in Kerk's fingers, the pieces dropping to the floor. He stood, over Jason, his hands extended towards the smaller man, his face flushed and angry.

"Don't ever say that," he roared. "Don't let me ever hear you say that again!"

Jason sat as quietly as he could, talking slowly and picking out each word with care. His life hung in the balance.

"Don't get angry, Kerk. I meant no harm. I'm on your side, remember? I can talk to you because you've seen much more of the universe than the Pyrrans who have never left the planet. You are used to discussing things. You know that words are just symbols. We can talk and know you don't have to lose your temper over mere words—"

Kerk slowly lowered his arms and stepped away. Then he turned and poured himself a glass of water from a bottle on the desk. He kept his back turned to Jason while he drank.

Very little of the sweat that Jason wiped from his sopping face was caused by the heat in the room.

"I'm ... sorry I lost my temper," Kerk said, dropping heavily into his chair. "Doesn't usually happen. Been working hard lately, must have got my temper on edge." He made no mention of what Jason had said.

"Happens to all of us," Jason told him. "I won't begin to describe the condition my nerves were in when I hit this planet. I'm finally forced to admit that everything you said about Pyrrus is true. It is the most deadly spot in the system. And only native-born Pyrrans could possibly survive here. I can manage to fumble along a bit after my training, but I know I would never stand a chance on my own. You probably know I have an eight-year-old as a bodyguard. Gives a good idea of my real status here."

Anger suppressed, Kerk was back in control of himself now. His eyes narrowed in thought. "Surprises me to hear you say that. Never thought I would hear you admit that anyone could be better than you at anything. Isn't that why you came here? To prove that you were as good as any native-born Pyrran?"

"Score one for your side," Jason admitted. "I didn't think it showed that much. And I'm glad to see your mind isn't as muscle-bound as your body. Yes,

I'll admit that was probably my main reason for coming, that and curiosity."

Kerk was following his own train of thoughts, and puzzled where they were leading him. "You came here to prove that you were as good as any native-born Pyrran. Yet now you admit that any eight-year-old can outdraw you. That just doesn't stack up with what I know about you. If you give with one hand, you must be taking back with the other. In what way do you still feel your natural superiority?"

Jason thought a long time before answering.

"I'll tell you," he finally said. "But don't snap my neck for it. I'm gambling that your civilized mind can control your reflexes. Because I have to talk about things that are strictly taboo on Pyrrus.

"In your people's eyes I'm a weakling because I come from off-world. Realize though, that this is also my strength. I can see things that are hidden from you by long association. You know, the old business of not being able to see the forest for the trees in the way." Kerk nodded agreement and Jason went on.

"To continue the analogy further, I landed from an airship, and at first all I *could* see was the forest. To me certain facts are obvious. I think that you people know them too, only you keep your thoughts carefully repressed. They are hidden thoughts that are completely taboo. I am going to say one of them out loud now and hope you can control yourself well enough to not kill me."

Kerk's great hands tightened on the arms of his chair, the only sign that he had heard. Jason talked quietly, as smoothly and easily as a lancet probing into a brain.

"Human beings are losing the war on Pyrrus. There is no chance they can win. They could leave for another planet, but that wouldn't be victory. Yet, if they stay and continue this war, they only prolong a particularly bloody form of racial suicide. With each generation the population drops. Until eventually the planet will win."

One arm of Kerk's plastic and steel chair tore loose under the crushing grasp of his fingers. He didn't notice it. The rest of his body was rock-still and his eyes fixed on Jason.

Looking away from the fractured chair, Jason sought for the right words.

"This is not a real war, but a disastrous treating of symptoms. Like cutting

off cancerous fingers one by one. The only result can be ultimate death. None of you seem to realize that. All you see are the trees. It has never occurred to you that you could treat the *causes* of this war and end it forever."

Kerk dropped the arm of the chair clattering to the floor. He sat up, astonished. "What the devil do you mean? You sound like a grubber."

Jason didn't ask what a grubber was—but he filed the name.

"Call me a Pyrran by adoption. I want this planet to survive as much as you do. I think this war can be ended by finding the *causes*—and changing them, whatever they are."

"You're talking nonsense," Kerk said. "This is just an alien world that must be battled. The causes are self-obvious facts of existence."

"No, they're not," Jason insisted. "Consider for a second. When you are away for any length of time from this planet, you must take a refresher course. To see how things have changed for the worse while you were gone. Well, that's a linear progression. If things get worse when you extend into the future, then they have to get better if you extend into the past. It is also good theory—though I don't know if the facts will bear me out—to say that if you extend it far enough into the past you will reach a time when mankind and Pyrrus were not at war with each other."

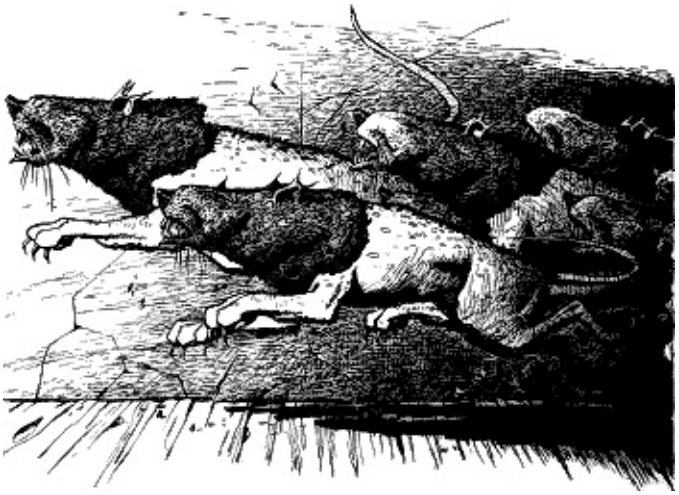
Kerk was beyond speech now, only capable of sitting and listening while Jason drove home the blows of inescapable logic.

"There is evidence to support this theory. Even you will admit that I, if I am no match for Pyrran life, am surely well versed in it. And all Pyrran flora and fauna I've seen have one thing in common. They're not functional. *None* of their immense armory of weapons is used against each other. Their toxins don't seem to operate against Pyrran life. They are good only for dispensing death to Homo sapiens. And *that* is a physical impossibility. In the three hundred years that men have been on this planet, the life forms couldn't have naturally adapted in this manner."

"But they *have* done it!" Kerk bellowed.

"You are so right," Jason told him calmly. "And if they have done it there must be some agency at work. Operating how—I have no idea. But something has caused the life on Pyrrus to declare war, and I'd like to find out what that something is. What was the dominant life form here when your ancestors

landed?"



"I'm sure I wouldn't know," Kerk said. "You're not suggesting, are you, that there are sentient beings on Pyrrus other than those of human descent? Creatures who are organizing the planet to battle us?"

"I'm not suggesting it—you are. That means you're getting the idea. I have no idea what caused this change, but I would sure like to find out. Then see if it can be changed back. Nothing promised, of course. You'll agree, though, that it is worth investigating."

Fist smacking into his palm, his heavy footsteps shaking the building, Kerk paced back and forth the length of the room. He was at war with himself. New ideas fought old beliefs. It was so sudden—and so hard not to believe.

Without asking permission Jason helped himself to some chilled water from the bottle, and sank back into the chair, exhausted. Something whizzed in through the open window, tearing a hole in the protective screen. Kerk blasted it without changing stride, without even knowing he had done it.

The decision didn't take long. Geared to swift activity, the big Pyrran found it impossible not to decide quickly. The pacing stopped and a finger stabbed at Jason.

"I don't say you have convinced me, but I find it impossible to find a ready answer to your arguments. So until I do, we will have to operate as if they are true. Now what do you plan to do, what *can* you do?"

Jason ticked the points off on his fingers. "One, I'll need a place to live and

work that is well protected. So instead of spending my energies on just remaining alive I can devote some study to this project. Two, I want someone to help me—and act as a bodyguard at the same time. And someone, please, with a little more scope of interest than my present watchdog. I would suggest Meta for the job."

"Meta?" Kerk was surprised. "She is a space pilot and defense-screen operator, what good could she possibly be on a project like this?"

"The most good possible. She has had experience on other worlds and can shift her point of view—at least a bit. And she must know as much about this planet as any other educated adult and can answer any questions I ask." Jason smiled. "In addition to which she is an attractive girl, whose company I enjoy."

Kerk grunted. "I was wondering if you would get around to mentioning that last reason. The others make sense though, so I'm not going to argue. I'll round up a replacement for her and have Meta sent here. There are plenty of sealed buildings you can use."

After talking to one of the assistants from the outer office, Kerk made some calls on the screen. The correct orders were quickly issued. Jason watched it all with interest.

"Pardon me for asking," he finally said. "But are you the dictator of this planet? You just snap your fingers and they all jump."

"I suppose it looks that way," Kerk admitted. "But that is just an illusion. No one is in complete charge on Pyrrus, neither is there anything resembling a democratic system. After all, our total population is about the size of an army division. Everyone does the job they are best qualified for. Various activities are separated into departments with the most qualified person in charge. I run Co-ordination and Supply, which is about the loosest category. We fill in the gaps between departments and handle procuring from off-planet."

Meta came in then and talked to Kerk. She completely ignored Jason's presence. "I was relieved and sent here," she said. "What is it? Change in flight schedule?"

"You might call it that," Kerk said. "As of now you are dismissed from all your old assignments and assigned to a new department: Investigation and Research. That tired-looking fellow there is your department head."

"A sense of humor," Jason said. "The only native-born one on Pyrrus. Congratulations, there's hope for the planet yet."

Meta glanced back and forth between them. "I don't understand. I can't believe it. I mean a new department—why?"

"I'm sorry," Kerk said. "I didn't mean to be cruel. I thought perhaps you might feel more at ease. What I said was true. Jason has a way—or may have a way—to be of immense value to Pyrrus. Will you help him?"

Meta had her composure back. And a little anger. "Do I have to? Is that an order? You know I have work to do. I'm sure you will realize it is more important than something a person from *off-planet* might imagine. He can't really understand—"

"Yes. It's an order." The snap was back in Kerk's voice. Meta flushed at the tone.

"Perhaps I can explain," Jason broke in. "After all the whole thing is my idea. But first I would like your co-operation. Will you take the clip out of your gun and give it to Kerk?"

Meta looked frightened, but Kerk nodded in solemn agreement. "Just for a few minutes, Meta. I have my gun so you will be safe here. I think I know what Jason has in mind, and from personal experience I'm afraid he is right."

Reluctantly Meta passed over the clip and cleared the charge in the gun's chamber. Only then did Jason explain.

"I have a theory about life on Pyrrus, and I'm afraid I'll have to shatter some illusions when I explain. To begin with, the fact must be admitted that your people are slowly losing the war here and will eventually be destroyed—"

Before he was half through the sentence, Meta's gun was directed between his eyes and she was wildly snapping the trigger. There was only hatred and revulsion in her expression. Kerk took her by the shoulders and sat her in his chair, before anything worse happened. It took a while before she could calm down enough to listen to Jason's words. It is not easy to have the carefully built-up falsehoods of a lifetime shattered. Only the fact that she had seen something of other worlds enabled her to listen at all.

The light of unreason was still in her eyes when he had finished, telling her the things he and Kerk had discussed. She sat tensely, pushed forward against Kerk's hands, as if they were the only things that stopped her from leaping at

Jason.

"Maybe that is too much to assimilate at one sitting," Jason said. "So let's put it in simpler terms. I believe we can find a reason for this unrelenting hatred of humans. Perhaps we don't smell right. Maybe I'll find an essence of crushed Pyrran bugs that will render us immune when we rub it in. I don't know yet. But whatever the results, we *must* make the investigation. Kerk agrees with me on that."

Meta looked at Kerk and he nodded agreement. Her shoulders slumped in sudden defeat. She whispered the words.

"I ... can't say I agree, or even understand all that you said. But I'll help you. If Kerk thinks that it is the right thing."

"I do," he said. "Now, do you want the clip back for your gun? Not planning to take any more shots at Jason?"

"That was foolish of me," she said coldly while she reloaded the gun. "I don't need a gun. If I had to kill him, I could do it with my bare hands."

"I love you, too," Jason smiled at her. "Are you ready to go now?"

"Of course." She brushed a fluffy curl of hair into place. "First we'll find a place where you can stay. I'll take care of that. After that the work of the new department is up to you."

X.

There were empty rooms in one of the computer buildings. These were completely sealed to keep stray animal life out of the delicate machinery. While Meta checked a bed-roll out of stores, Jason painfully dragged a desk, table and chairs in from a nearby empty office. When she returned with a pneumatic bed he instantly dropped on it with a grateful sigh. Her lip curled a bit at his obvious weakness.

"Get used to the sight," he said. "I intend to do as much of my work as I can, while maintaining a horizontal position. You will be my strong right arm. And right now, Right Arm, I wish you could scare me up something to eat. I also intend to do most of my eating in the previously mentioned prone condition."

Snorting with disgust, Meta stamped out. While she was gone, Jason chewed the end of a stylus thoughtfully, then made some careful notes.

After they had finished the almost-tasteless meal he began the search.

"Meta, where can I find historical records of Pyrrus?"

"I've never heard of any ... I really don't know."

"But there has to be something—*somewhere*," he insisted. "Even if your present-day culture devotes all of its time and energies to survival, you can be sure it wasn't always that way. All the time it was developing, people were keeping records, making notes. Now where do we look? Do you have a library here?"

"Of course," she said. "We have an excellent technical library. But I'm sure there wouldn't be any of *that* sort of thing there."

Trying not to groan, Jason stood up. "Let me be the judge of that. Just lead the way."

Operation of the library was completely automatic. A projected index gave the call number for any text that had to be consulted. The tape was delivered to the charge desk thirty seconds after the number had been punched. Returned tapes were dropped through a hopper and refiled automatically. The mechanism worked smoothly.

"Wonderful," Jason said, pushing away from the index. "A tribute to

technological ingenuity. Only it contains nothing of any value to us. Just reams of textbooks."

"What *else* should be in a library?" Meta sounded sincerely puzzled.

Jason started to explain, then changed his mind. "Later we will go into that," he said. "Much later. Now we have to find a lead. Is it possible that there are any tapes—or even printed books—that aren't filed through this machine?"

"It seems unlikely, but we could ask Poli. He lives here somewhere and is in charge of the library—filing new books and tending the machinery."

The single door into the rear of the building was locked, and no amount of pounding could rouse the caretaker.

"If he's alive, this should do it," Jason said. He pressed the out-of-order button on the control panel. It had the desired affect. Within five minutes the door opened and Poli dragged himself through it.

Death usually came swiftly on Pyrrus. If wounds slowed a man down, the ever-ready forces of destruction quickly finished the job. Poli was the exception to this rule. Whatever had attacked him originally had done an efficient job. Most of the lower part of his face was gone. His left arm was curled and useless. The damage to his body and legs had left him with the bare capability to stumble from one spot to the next.

Yet he still had one good arm as well as his eyesight. He could work in the library and relieve a fully fit man. How long he had been dragging the useless husk of a body around the building, no one knew. In spite of the pain that filled his red-rimmed, moist eyes, he had stayed alive. Growing old, older than any other Pyrran as far as Jason had seen. He tottered forward and turned off the alarm that had called him.

When Jason started to explain the old man took no notice. Only after the librarian had rummaged a hearing aid out of his clothes, did Jason realize he was deaf as well. Jason explained again what he searched for. Poli nodded and printed his answer on a tablet.

there are many old books—in the storerooms below

Most of the building was taken up by the robot filing and sorting apparatus. They moved slowly through the banks of machinery, following the crippled librarian to a barred door in the rear. He pointed to it. While Jason and Meta fought to open the age-incrusted bars, he wrote another note on his tablet.

not opened for many years, rats

Jason's and Meta's guns appeared reflexively in their hands as they read the message. Jason finished opening the door by himself. The two native Pyrrans stood facing the opening gap. It was well they did. Jason could never have handled what came through that door.

He didn't even open it for himself. Their sounds at the door must have attracted all the vermin in the lower part of the building. Jason had thrown the last bolt and started to pull on the handle—when the door was *pushed* open from the other side.

Open the gateway to hell and see what comes out. Meta and Poli stood shoulder to shoulder firing into the mass of loathsomeness that boiled through the door. Jason jumped to one side and picked off the occasional animal that came his way. The destruction seemed to go on forever.

Long minutes passed before the last clawed beast made its death rush. Meta and Poli waited expectantly for more, they were happily excited by this chance to deal destruction. Jason felt a little sick after the silent ferocious attack. A ferocity that the Pyrrans reflected. He saw a scratch on Meta's face where one of the beasts had caught her. She seemed oblivious to it.

Pulling out his medikit, Jason circled the piled bodies. Something stirred in their midst and a crashing shot ploughed into it. Then he reached the girl and pushed the analyzer probes against the scratch. The machine clicked and Meta jumped as the antitoxin needle stabbed down. She realized for the first time what Jason was doing.

"Thank you," she said.

Poli had a powerful battery lamp and, by unspoken agreement, Jason carried it. Crippled though he was, the old man was still a Pyrran when it came to handling a gun. They slowly made their way down the refuse-laden stairs.

"What a stench," Jason grimaced.

At the foot of the stairs they looked around. There *had* been books and records there at one time. They had been systematically chewed, eaten and destroyed for decades.

"I like the care you take with your old books," Jason said disgustedly.

"They could have been of no importance," Meta said coolly, "or they would

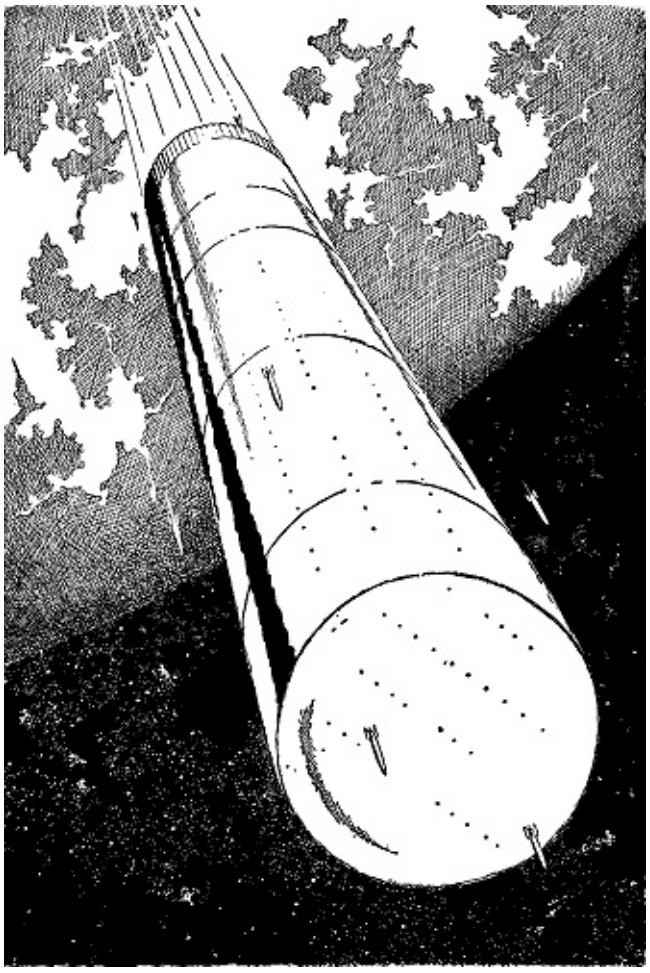
be filed correctly in the library upstairs."

Jason wandered gloomily through the rooms. Nothing remained of any value. Fragments and scraps of writing and printing. Never enough in one spot to bother collecting. With the toe of one armored boot, he kicked angrily at a pile of debris, ready to give up the search. There was a glint of rusty metal under the dirt.

"Hold this!" He gave the light to Meta and began scratching aside the rubble. A flat metal box with a dial lock built into it, was revealed.

"Why that's a log box!" Meta said, surprised.

"That's what I thought," Jason said.



XI.

RESEALING the cellar, they carried the box back to Jason's new office. Only after spraying with decontaminant, did they examine it closely. Meta picked out engraved letters on the lid.

"S. T. POLLUX VICTORY—that must be the name of the spacer this log came from. But I don't recognize the class, or whatever it is the initials *S. T.* stand for."

"Stellar Transport," Jason told her, as he tried the lock mechanism. "I've heard of them but I've never seen one. They were built during the last wave of galactic expansion. Really nothing more than gigantic metal containers, put together in space. After they were loaded with people, machinery and supplies, they would be towed to whatever planetary system had been chosen. These same tugs and one-shot rockets would brake the S. T.'s in for a landing. Then leave them there. The hull was a ready source of metal and the colonists could start right in building their new world. And they were *big*. All of them held at least fifty thousand people ..."

Only after he said it, did he realize the significance of his words. Meta's deadly stare drove it home. There were now less people on Pyrrus than had been in the original settlement.

And human population, without rigid birth controls, usually increased geometrically. Jason dinAlt suddenly remembered Meta's itchy trigger finger.

"But we can't be sure how many people were aboard this one," he said hurriedly. "Or even if this is the log of the ship that settled Pyrrus. Can you find something to pry this open with? The lock is corroded into a single lump."

Meta took her anger out on the box. Her fingers managed to force a gap between lid and bottom. She wrenched at it. Rusty metal screeched and tore. The lid came off in her hands and a heavy book thudded to the table.

The cover legend destroyed all doubt.

LOG OF S. T. POLLUX VICTORY. OUTWARD BOUND—SETANI TO PYRRUS. 55,000 SETTLERS ABOARD.

Meta couldn't argue now. She stood behind Jason with tight-clenched fists and read over his shoulder as he turned the brittle, yellowed pages. He quickly skipped through the opening part that covered the sailing preparations and trip

out. Only when he had reached the actual landing did he start reading slowly. The impact of the ancient words leaped out at him.

"Here it is," Jason shouted. "Proof positive that we're on the right trail. Even *you* will have to admit that. Read it, right here."

... Second day since the tugs left, we are completely on our own now. The settlers still haven't grown used to this planet, though we have orientation talks every night. As well as the morale agents who I have working twenty hours a day. I suppose I really can't blame the people, they all lived in the underways of Setani and I doubt if they saw the sun once a year. This planet has weather with a vengeance, worse than anything I've seen on a hundred other planets. Was I wrong during the original planning stages not to insist on settlers from one of the agrarian worlds? People who could handle the outdoors.

These citified Setanians are afraid to go out in the rain. But of course they have adapted completely to their native 1.5 gravity so the two gee here doesn't bother them much. That was the factor that decided us. Anyway—too late now to do anything about it. Or about the unending cycle of rain, snow, hail, hurricanes and such. Answer will be to start the mines going, sell the metals and build completely enclosed cities.

The only thing on this forsaken planet that isn't actually against us are the animals. A few large predators at first, but the guards made short work of them. The rest of the wild life leaves us alone. Glad of that! They have been fighting for existence so long that I have never seen a more deadly looking collection. Even the little rodents no bigger than a man's hand are armored like tanks ...

"I don't believe a word of it," Meta broke in. "That can't be Pyrrus he's writing about ..." Her words died away as Jason wordlessly pointed to the title on the cover.

He continued scanning the pages, flipping them quickly. A sentence caught his eye and he stopped. Jamming his finger against the place, he read aloud.

"'... And troubles keep piling up. First Har Palo with his theory that the vulcanism is so close to the surface that the ground keeps warm and the crops grow so well. Even if he is right—what can we do? We must be self-dependent if we intend to survive. And now this other thing. It seems that the forest fire drove a lot of new species our way. Animals, insects and even birds have attacked the people. (Note for Har: check if possible seasonal migration might

explain attacks.) There have been fourteen deaths from wounds and poisoning. We'll have to enforce the rules for insect lotion at all times. And I suppose build some kind of perimeter defense to keep the larger beasts out of the camp.'

"This is a beginning," Jason said. "At least now we are aware of the real nature of the battle we're engaged in. It doesn't make Pyrrus any easier to handle, or make the life forms less dangerous, to know that they were once better disposed towards mankind. All this does is point the way. Something took the peaceful life forms, shook them up, and turned this planet into one big deathtrap for mankind. That *something* is what I want to uncover."

XII.

Further reading of the log produced no new evidence. There was a good deal more information about the early animal and plant life and how deadly they were, as well as the first defenses against them. Interesting historically, but of no use whatsoever in countering the menace. The captain apparently never thought that life forms were altering on Pyrrus, believing instead that dangerous beasts were being discovered. He never lived to change his mind. The last entry in the log, less than two months after the first attack, was very brief. And in a different handwriting.

Captain Kurkowski died today, of poisoning following an insect bite. His death is greatly mourned.

The "why" of the planetary revulsion had yet to be uncovered.

"Kerk must see this book," Jason said. "He should have some idea of the progress being made. Can we get transportation—or do we walk to city hall?"

"Walk, of course," Meta said.

"Then you bring the book. At two G's I find it very hard to be a gentleman and carry the packages."

They had just entered Kerk's outer office when a shrill screaming burst out of the phone-screen. It took Jason a moment to realize that it was a mechanical signal, not a human voice.

"What is it?" he asked.

Kerk burst through the door and headed for the street entrance. Everyone else in the office was going the same way. Meta looked confused, leaning towards the door, then looking back at Jason.

"What does it mean? Can't you tell me?" He shook her arm.

"Sector alarm. A major breakthrough of some kind at the perimeter. Everyone but other perimeter guards has to answer."

"Well, go then," he said. "Don't worry about me. I'll be all right."

His words acted like a trigger release. Meta's gun was in her hand and she was gone before he had finished speaking. Jason sat down wearily in the deserted office.

The unnatural silence in the building began to get on his nerves. He shifted his chair over to the phone-screen and switched it on to *receive*. The screen

exploded with color and sound. At first Jason could make no sense of it at all. Just a confused jumble of faces and voices. It was a multi-channel set designed for military use. A number of images were carried on the screen at one time, rows of heads or hazy backgrounds where the user had left the field of view. Many of the heads were talking at the same time and the babble of their voices made no sense whatsoever.

After examining the controls and making a few experiments, Jason began to understand the operation. Though all stations were on the screen at all times, their audio channels could be controlled. In that way two, three or more stations could be hooked together in a link-up. They would be in round-robin communication with each other, yet never out of contact with the other stations.

Identification between voice and sound was automatic. Whenever one of the pictured images spoke, the image would glow red. By trial and error Jason brought in the audio for the stations he wanted and tried to follow the course of the attack.

Very quickly he realized this was something out of the ordinary. In some way, no one made it clear, a section of the perimeter had been broken through and emergency defenses had to be thrown up to encapsulate it. Kerk seemed to be in charge, at least he was the only one with an override transmitter. He used it for general commands. The many, tiny images faded and his face appeared on top of them, filling the entire screen.

"All perimeter stations send twenty-five per cent of your complement to Area Twelve."

The small images reappeared and the babble increased, red lights flickering from face to face.

"... Abandon the first floor, acid bombs can't reach."

"If we hold we'll be cut off, but salient is past us on the west flank. Request support."

"DON'T MERVV ... IT'S USELESS!"

"... And the napalm tanks are almost gone. Orders?"

"The truck is still there, get it to the supply warehouse, you'll find replacements ..."

Out of the welter of talk, only the last two fragments made any sense. Jason

had noticed the signs below when he came in. The first two floors of the building below him were jammed with military supplies. This was his chance to get into the act.

Just sitting and watching was frustrating. Particularly when it was a desperate emergency. He didn't overvalue his worth, but he was sure there was always room for another gun.

By the time he had dragged himself down to the street level a turbo-truck had slammed to a stop in front of the loading platform. Two Pyrrans were rolling out drums of napalm with reckless disregard for their own safety. Jason didn't dare enter that maelstrom of rolling metal. He found he could be of use tugging the heavy drums into position on the truck while the others rolled them up. They accepted his aid without acknowledgment.

It was exhausting, sweaty work, hauling the leaden drums into place against the heavy gravity. After a minute Jason worked by touch through a red haze of hammering blood. He realized the job was done only when the truck suddenly leaped forward and he was thrown to the floor. He lay there, his chest heaving. As the driver hurled the heavy vehicle along, all Jason could do was bounce around in the bottom. He could see well enough, but was still gasping for breath when they braked at the fighting zone.

To Jason, it was a scene of incredible confusion. Guns firing, flames, men and women running on all sides. The napalm drums were unloaded without his help and the truck vanished for more. Jason leaned against a wall of a half-destroyed building and tried to get his bearings. It was impossible. There seemed to be a great number of small animals: he killed two that attacked him. Other than that he couldn't determine the nature of the battle.

A Pyrran, tan face white with pain and exertion, stumbled up. His right arm, wet with raw flesh and dripping blood, hung limply at his side. It was covered with freshly applied surgical foam. He held his gun in his left hand, a stump of control cable dangling from it. Jason thought the man was looking for medical aid. He couldn't have been more wrong.

Clenching the gun in his teeth, the Pyrran clutched a barrel of napalm with his good hand and hurled it over on its side. Then, with the gun once more in his hand, he began to roll the drum along the ground with his feet. It was slow, cumbersome work, but he was still in the fight.

Jason pushed through the hurrying crowd and bent over the drum. “Let me do it,” he said. “You can cover us both with your gun.”

The man wiped the sweat from his eyes with the back of his arm and blinked at Jason. He seemed to recognize him. When he smiled it was a grimace of pain, empty of humor. “Do that. I can still shoot. Two half men—maybe we equal one whole.” Jason was laboring too hard to even notice the insult.

An explosion had blasted a raw pit in the street ahead. Two people were at the bottom, digging it even deeper with shovels. The whole thing seemed meaningless. Just as Jason and the wounded man rolled up the drum the diggers leaped out of the excavation and began shooting down into its depths. One of them turned, a young girl, barely in her teens.

“Praise Perimeter!” she breathed. “They found the napalm. One of the new horrors is breaking through towards Thirteen, we just found it.” Even as she talked she swiveled the drum around, kicked the easy-off plug, and began dumping the gelid contents into the hole. When half of it had gurgled down, she kicked the drum itself in. Her companion pulled a flare from his belt, lit it, and threw it after the drum.



"Back quick. They don't like heat," he said.

This was putting it very mildly. The napalm caught, tongues of flame and roiling, greasy smoke climbed up to the sky. Under Jason's feet the earth shifted and moved. *Something* black and long stirred in the heart of the flame, then arched up into the sky over their heads. In the midst of the searing heat it still moved with alien, jolting motions. It was immense, at least two meters thick and with no indication of its length. The flames didn't stop it at all, just annoyed it.

Jason had some idea of the thing's length as the street cracked and buckled for fifty meters on each side of the pit. Great loops of the creature began to emerge from the ground. He fired his gun, as did the others. Not that it seemed to have any effect. More and more people were appearing, armed with a variety of weapons. Flame-throwers and grenades seemed to be the most effective.

"*Clear the area ... we're going to saturate it. Fall back.*"

The voice was so loud it jarred Jason's ear. He turned and recognized Kerk, who had arrived with truckloads of equipment. He had a power speaker on his

back, the mike hung in front of his lips. His amplified voice brought an instant reaction from the crowd. They began to move.

There was still doubt in Jason's mind what to do. Clear the area? But what area? He started towards Kerk, before he realized that the rest of the Pyrrans were going in the opposite direction. Even under two gravities they*moved*.

Jason had a naked feeling of being alone on the stage. He was in the center of the street, and the others had vanished. No one remained. Except the wounded man Jason had helped. He stumbled towards Jason, waving his good arm. Jason couldn't understand what he said. Kerk was shouting orders again from one of the trucks. They had started to move too. The urgency struck home and Jason started to run.

It was too late. On all sides the earth was buckling, cracking, as more loops of the underground thing forced its way into the light. Safety lay ahead. Only in front of it rose an arch of dirt-encrusted gray.

There are seconds of time that seem to last an eternity. A moment of subjective time that is grabbed and stretched to an infinite distance. This was one of those moments. Jason stood, frozen. Even the smoke in the sky hung unmoving. The high-standing loop of alien life was before him, every detail piercingly clear.

Thick as a man, ribbed and gray as old bark. Tendrils projected from all parts of it, pallid and twisting lengths that writhed slowly with snakelike life. Shaped like a plant, yet with the motions of an animal. And cracking, splitting. This was the worst.

Seams and openings appeared. Splintering, gaping mouths that vomited out a horde of pallid animals. Jason heard their shriekings, shrill yet remote. He saw the needlelike teeth that lined their jaws.

The paralysis of the unknown held him there. He should have died. Kerk was thundering at him through the power speaker, others were firing into the attacking creature. Jason knew nothing.

Then he was shot forward, pushed by a rock-hard shoulder. The wounded man was still there, trying to get Jason clear. Gun clenched in his jaws he dragged Jason along with his good arm. Towards the creature. The others stopped firing. They saw his plan and it was a good one.

A loop of the thing arched into the air, leaving an opening between its body and the ground. The wounded Pyrran planted his feet and tightened his muscles. One-handed, with a single thrust, he picked Jason off the ground and sent him hurtling under the living arch. Moving tendrils brushed fire along his face, then he was through, rolling over and over on the ground. The wounded Pyrran leaped after him.

It was too late. There had been a chance for one person to get out. The Pyrran could have done it easily—instead he had pushed Jason first. The thing was aware of movement when Jason brushed its tendrils. It dropped and caught the wounded man under its weight. He vanished from sight as the tendrils wrapped around him and the animals swarmed over. His trigger must have pulled back to full automatic because the gun kept firing a long time after he should have been dead.

Jason crawled. Some of the fanged animals ran towards him, but were shot. He knew nothing about this. Then rude hands grabbed him up and pulled him forward. He slammed into the side of a truck and Kerk's face was in front of his, flushed and angry. One of the giant fists closed on the front of Jason's clothes and he was lifted off his feet, shaken like a limp bag of rags. He offered no protest and could not have even if Kerk had killed him.

When he was thrown to the ground, someone picked him up and slid him into the back of the truck. He did not lose consciousness as the truck bounced away, yet he could not move. In a moment the fatigue would go away and he would sit up. That was all he was, just a little tired. Even as he thought this he passed out.

XIII.

"Just like old times," Jason said when Brucco came into the room with a tray of food. Without a word Brucco served Jason and the wounded men in the other beds, then left. "Thanks," Jason called after his retreating back.

A joke, a twist of a grin, like it always was. Sure. But even as he grinned and his lips shaped a joke, Jason felt them like a veneer on the outside. Something plastered on with a life of its own. Inside he was numb and immovable. His body was stiff as his eyes still watched that arch of alien flesh descend and smother the one-armed Pyrran with its million burning fingers.

He could feel himself under the arch. After all, hadn't the wounded man taken his place? He finished the meal without realizing that he ate.

Ever since that morning, when he had recovered consciousness, it had been like this. He knew that he should have died out there in that battle-torn street. *His* life should have been snuffed out, for making the mistake of thinking that he could actually help the battling Pyrrans. Instead of being underfoot and in the way. If it hadn't been for Jason, the man with the wounded arm would have been brought here to the safety of the reorientation buildings. He knew he was lying in the bed that belonged to that man.

The man who had given his life for Jason's.

The man whose name he didn't even know.

There were drugs in the food and they made him sleep. The medicated pads soaked the pain and rawness out of the burns where the tentacles had seared his face. When he awoke the second time, his touch with reality had been restored.

A man had died so he could live. Jason faced the fact. He couldn't restore that life, no matter how much he wanted to. What he could do was make the man's death worth while. If it can be said that any death was worth while ... He forced his thoughts from that track.

Jason knew what he had to do. His work was even more important now. If he could solve the riddle of this deadly world, he could repay in part the debt he owed.

Sitting up made his head spin and he held to the edge of the bed until it slowed down. The others in the room ignored him as he slowly and painfully dragged on his clothes. Brucco came in, saw what he was doing, and left again

without a word.

Dressing took a long time, but it was finally done. When Jason finally left the room he found Kerk waiting for him.

"Kerk ... I want to tell you ..."

"Tell me *nothing*!" The thunder of Kerk's voice bounced back from the ceiling and walls. "I'm telling *you*. I'll tell you once and that will be the end of it. You're not wanted on Pyrrus, Jason dinAlt, neither you nor your precious off-world schemes are wanted here. I let you convince me once with your twisted tongue. Helped you at the expense of more important work. I should have known what the result of your 'logic' would be. Now I've seen. Welf died so you could live. He was twice the man you will ever be."

"Welf? Was that his name?" Jason asked stumblingly. "I didn't know—"

"You didn't even know." Kerk's lips pulled back from his teeth in a grimace of disgust. "You didn't even know his name—yet he died that you might continue your miserable existence." Kerk spat, as if the words gave a vile flavor to his speech, and stamped towards the exit lock. Almost as an afterthought he turned back to Jason.

"You'll stay here in the sealed buildings until the ship returns in two weeks. Then you will leave this planet and never come back. If you do, I'll kill you instantly. With pleasure." He started through the lock.

"Wait," Jason shouted. "You can't decide like that. You haven't even seen the evidence I've uncovered. Ask Meta—" The lock thumped shut and Kerk was gone.

The whole thing was just too stupid. Anger began to replace the futile despair of a moment before. He was being treated like an irresponsible child, the importance of his discovery of the log completely ignored.

Jason turned and saw for the first time that Brucco was standing there. "Did you hear that?" Jason asked him.

"Yes. And I quite agree. You can consider yourself lucky."

"Lucky!" Jason was the angry one now. "Lucky to be treated like a moronic child, with contempt for everything I do—"

"I said lucky," Brucco snapped. "Welf was Kerk's only surviving son. Kerk had high hopes for him, was training him to take his place eventually." He

turned to leave but Jason called after him.

"Wait. I'm sorry about Welf. I can't be any sorrier knowing that he was Kerk's son. But at least it explains why Kerk is so quick to throw me out—as well as the evidence I have uncovered. The log of the ship—"

"I know, I've seen it," Brucco said. "Meta brought it in. Very interesting historical document."

"That's all you can see it as—an historical document? The significance of the planetary change escapes you?"

"It doesn't escape me," Brucco answered briefly, "but I cannot see that it has any relevancy today. The past is unchangeable and we must fight in the present. That is enough to occupy all our energies."

Jason felt too exhausted to argue the point any more. He ran into the same stone wall with all the Pyrrans. Theirs was a logic of the moment. The past and the future unchangeable, unknowable—and uninteresting. "How is the perimeter battle going?" he asked, wanting to change the subject.

"Finished. Or in the last stages at least," Brucco was almost enthusiastic as he showed Jason some stereos of the attackers. He did not notice Jason's repressed shudder.

"This was one of the most serious breakthroughs in years, but we caught it in time. I hate to think what would have happened if they hadn't been detected for a few weeks more."

"What are those things?" Jason asked. "Giant snakes of some kind?"

"Don't be absurd," Brucco snorted. He tapped the stereo with his thumbnail. "Roots. That's all. Greatly modified, but still roots. They came in under the perimeter barrier, much deeper than anything we've had before. Not a real threat in themselves as they have very little mobility. Die soon after being cut. The danger came from their being used as access tunnels. They're bored through and through with animal runs, and two or three species of beasts live in a sort of symbiosis inside.

"Now we know what they are we can watch for them. The danger was they could have completely undermined the perimeter and come in from all sides at once. Not much we could have done then."



The edge of destruction. Living on the lip of a volcano. The Pyrrans took satisfaction from any day that passed without total annihilation. There seemed no way to change their attitude. Jason let the conversation die there. He picked up the log of the*Pollux Victory* from Brucco's quarters and carried it back to his room. The wounded Pyrrans there ignored him as he dropped onto the bed and opened the book to the first page.

For two days he did not leave his quarters. The wounded men were soon gone and he had the room to himself. Page by page he went through the log, until he knew every detail of the settlement of Pyrrus. His notes and cross-references piled up. He made an accurate map of the original settlement, superimposed over a modern one. They didn't match at all.

It was a dead end. With one map held over the other, what he had suspected was painfully clear. The descriptions of terrain and physical features in the log were accurate enough. The city had obviously been moved since the first landing. Whatever records had been kept would be in the library—and he had exhausted that source. Anything else would have been left behind and long since destroyed.

Rain lashed against the thick window above his head, lit suddenly by a flare of lightning. The unseen volcanoes were active again, vibrating the floor with their rumblings deep in the earth.

The shadow of defeat pressed heavily down on Jason. Rounding his shoulders and darkening, even more, the overcast day.

XIV.

Jason spent one depressed day lying on his bunk counting rivets, forcing himself to accept defeat. Kerk's order that he was not to leave the sealed building tied his hands completely. He felt himself close to the answer—but he was never going to get it.

One day of defeat was all he could take. Kerk's attitude was completely emotional, untempered by the slightest touch of logic. This fact kept driving home until Jason could no longer ignore it. Emotional reasoning was something he had learned to mistrust early in life. He couldn't agree with Kerk in the slightest—which meant he had to utilize the ten remaining days to solve the problem. If it meant disobeying Kerk, it would still have to be done.

He grabbed up his noteplate with a new enthusiasm. His first sources of information had been used up, but there must be others. Chewing the scriber and needling his brain, he slowly built up a list of other possibilities. Any idea, no matter how wild, was put down. When the plate was filled he wiped the long shots and impossibles—such as consulting off-world historical records. This was a Pyrran problem, and had to be settled on this planet or not at all.

The list worked down to two probables. Either old records, notebooks or diaries that individual Pyrrans might have in their possession, or verbal histories that had been passed down the generations by word of mouth. The first choice seemed to be the most probable and he acted on it at once. After a careful check of his medikit and gun he went to see Brucco.

"What's new and deadly in the world since I left?" he asked.

Brucco glared at him. "You can't go out, Kerk has forbidden it."

"Did he put you in charge of guarding me to see if I obeyed?" Jason's voice was quiet and cold.

Brucco rubbed his jaw and frowned in thought. Finally he just shrugged. "No, I'm not guarding you—nor do I want the job. As far as I know this is between you and Kerk and it can stay that way. Leave whenever you want. And get yourself killed quietly some place so there will be an end to the trouble you cause once and for all."

"I love you, too," Jason said. "Now brief me on the wildlife."

The only new mutation that routine precautions wouldn't take care of was a

slate-colored lizard that spit a fast nerve poison with deadly accuracy. Death took place in seconds if the saliva touched any bare skin. The lizards had to be looked out for, and shot before they came within range. An hour of lizard-blasting in a training chamber made him proficient in the exact procedure.

Jason left the sealed buildings quietly and no one saw him go. He followed the map to the nearest barracks, shuffling tiredly through the dusty streets. It was a hot, quiet afternoon, broken only by rumblings from the distance, and the occasional crack of his gun.

It was cool inside the thick-walled barracks buildings, and he collapsed onto a bench until the sweat dried and his heart stopped pounding. Then he went to the nearest recreation room to start his search.

Before it began it was finished. None of the Pyrrans kept old artifacts of any kind and thought the whole idea was very funny. After the twentieth negative answer Jason was ready to admit defeat in this line of investigation. There was as much chance of meeting a Pyrran with old documents as finding a bundle of grandfather's letters in a soldier's kit bag.

This left a single possibility—verbal histories. Again Jason questioned with the same lack of results. The fun had worn off the game for the Pyrrans and they were beginning to growl. Jason stopped while he was still in one piece. The commissary served him a meal that tasted like plastic paste and wood pulp. He ate it quickly, then sat brooding over the empty tray, hating to admit to another dead end. Who could supply him with answers? All the people he had talked to were so young. They had no interest or patience for story-telling. That was an old folks' hobby—and there were no oldsters on Pyrrus.

With one exception that he knew of, the librarian, Poli. It was a possibility. A man who worked with records and books might have an interest in some of the older ones. He might even remember reading volumes now destroyed. A very slim lead indeed, but one that had to be pursued.

Walking to the library almost killed Jason. The torrential rains made the footing bad, and in the dim light it was hard to see what was coming. A snapper came in close enough to take out a chunk of flesh before he could blast it. The antitoxin made him dizzy and he lost some blood before he could get the wound dressed. He reached the library, exhausted and angry.

Poli was working on the guts of one of the catalogue machines. He didn't stop until Jason had tapped him on the shoulder. Switching on his hearing aid, the Pyrran stood quietly, crippled and bent, waiting for Jason to talk.

"Have you any old papers or letters that you have kept for your personal use?"

A shake of the head, *no*.

"What about stories—you know, about great things that have happened in the past, that someone might have told you when you were young?" Negative.

Results negative. Every question was answered by a shake of Poli's head, and very soon the old man grew irritated and pointed to the work he hadn't finished.

"Yes, I know you have work to do," Jason said. "But this is important." Poli shook his head an angry *no* and reached to turn off his hearing aid. Jason groped for a question that might get a more positive answer. There was something tugging at his mind, a word he had heard and made a note of, to be investigated later. Something that Kerk had said ...

"That's it!" It was right there—on the tip of his tongue. "Just a second, Poli, just one more question. What is a 'grubber'? Have you ever seen one or know what they do, or where they can be found—"

The words were cut off as Poli whirled and lashed the back of his good arm into Jason's face. Though the man was aged and crippled, the blow almost fractured Jason's jaw, sending him sliding across the floor. Through a daze he saw Poli hobbling towards him, making thick bubbling noises in his ruined throat; what remained of his face twisted and working with anger.

This was no time for diplomacy. Moving as fast as he could, with the high-G, foot-slapping shuffle, Jason headed for the sealed door. He was no match for any Pyrran in hand-to-hand combat, young and small or old and crippled. The door thunked open, as he went through, and barely closed in Poli's face.

Outside the rain had turned to snow and Jason trudged wearily through the slush, rubbing his sore jaw and turning over the only fact he had. *Grubber* was a key—but to what? And who did he dare ask for more information? Kerk was the man he had talked to best, but not any more. That left only Meta as a possible source. He wanted to see her at once, but sudden exhaustion swept through him. It took all of his strength to stumble back to the school buildings.

In the morning he ate and left early. There was only a week left. It was impossible to hurry and he cursed as he dragged his double-weight body to the assignment center. Meta was on night perimeter duty and should be back to her quarters soon. He shuffled over there and was lying on her bunk when she came in.

"Get out," she said in a flat voice. "Or do I throw you out?"

"Patience, please," he said as he sat up. "Just resting here until you came back. I have a single question, and if you will answer it for me I'll go and stop bothering you."

"What is it?" she asked, tapping her foot with impatience. But there was also a touch of curiosity in her voice. Jason thought carefully before he spoke.

"Now *please*, don't shoot me. You know I'm an off-worlder with a big mouth, and you have heard me say some awful things without taking a shot at me. Now I have another one. Will you please show your superiority to the other people of the galaxy by holding your temper and not reducing me to component atoms?"

His only answer was a tap of the foot, so he took a deep breath and plunged in.

"What is a 'grubber'?"

For a long moment she was quiet, unmoving. Then she curled her lips back in disgust. "You find the most repulsive topics."

"That may be so," he said, "but it still doesn't answer my question."

"It's ... well, the sort of thing people just don't talk about."

"I do," he assured her.

"Well, I *don't*! It's the most disgusting thing in the world, and that's all I'm going to say. Talk to Krannon, but not to me." She had him by the arm while she talked and he was half dragged to the hall. The door slammed behind him and he muttered "*lady wrestler*" under his breath. His anger ebbed away as he realized that she had given him a clue in spite of herself. Next step, find out who or what Krannon was.

Assignment center listed a man named Krannon, and gave his shift number and work location. It was close by and Jason walked there. A large, cubical, and windowless building, with the single word *food* next to each of the sealed entrances. The small entrance he went through was a series of automatic

chambers that cycled him through ultrasonics, ultraviolet, antibio spray, rotating brushes and three final rinses. He was finally admitted, damper but much cleaner to the central area. Men and robots were stacking crates and he asked one of the men for Krannon. The man looked him up and down coldly and spat on his shoes before answering.

Krannon worked in a large storage bay by himself. He was a stocky man in patched coveralls whose only expression was one of intense gloom. When Jason came in he stopped hauling bales and sat down on the nearest one. The lines of unhappiness were cut into his face and seemed to grow deeper while Jason explained what he was after. All the talk of ancient history on Pyrrus bored him as well and he yawned openly. When Jason finished he yawned again and didn't even bother to answer him.



Jason waited a moment, then asked again. "I said do you have any old books, papers, records or that sort of thing?"

"You sure picked the right guy to bother, off-worlder," was his only answer. "After talking to me you're going to have nothing but trouble."

"Why is that?" Jason asked.

"Why?" For the first time he was animated with something besides grief. "I'll tell you why! I made one mistake, just one, and I get a life sentence. For life—how would you like that? Just me alone, being by myself all the time. Even taking orders from the grubbers."

Jason controlled himself, keeping the elation out of his voice. "Grubbers? What are grubbers?"

The enormity of the question stopped Krannon, it seemed impossible that there could be a man alive who had never heard of grubbers. Happiness lifted some of the gloom from his face as he realized that he had a captive audience who would listen to his troubles.

"Grubbers are traitors—that's what they are. Traitors to the human race and they ought to be wiped out. Living in the jungle. The things they do with the animals—"

"You mean they're people ... Pyrrans like yourself?" Jason broke in.

"Not like *me*, mister. Don't make that mistake again if you want to go on living. Maybe I dozed off on guard once so I got stuck with this job. That doesn't mean I like it or like them. They stink, really stink, and if it wasn't for the food we get from them they'd all be dead tomorrow. That's the kind of killing job I could really put my heart into."

"If they supply you with food, you must give them something in return?"

"Trade goods, beads, knives, the usual things. Supply sends them over in cartons and I take care of the delivery."

"How?" Jason asked.

"By armored truck to the delivery site. Then I go back later to pick up the food they've left in exchange."

"Can I go with you on the next delivery?"

Krannon frowned over the idea for a minute. "Yeah, I suppose it's all right if you're stupid enough to come. You can help me load. They're between harvests now, so the next trip won't be for eight days—"

"But that's after the ship leaves—it'll be too late. Can't you go earlier?"

"Don't tell me your troubles, mister," Krannon grumbled, climbing to his feet. "That's when I go and the date's not changing for you."

Jason realized he had got as much out of the man as was possible for one session. He started for the door, then turned.

"One thing," he asked. "Just what do these savages—the grubbers—look like?"

"How do I know," Krannon snapped. "I trade with them, I don't make love to them. If I ever saw one, I'd shoot him down on the spot." He flexed his

fingers and his gun jumped in and out of his hand as he said it. Jason quietly let himself out.

Lying on his bunk, resting his gravity-weary body, he searched for a way to get Krannon to change the delivery date. His millions of credits were worthless on this world without currency. If the man couldn't be convinced, he had to be bribed. With what? Jason's eyes touched the locker where his off-world clothing still hung, and he had an idea.

It was morning before he could return to the food warehouse—and one day closer to his deadline. Krannon didn't bother to look up from his work when Jason came in.

"Do you want this?" Jason asked, handing the outcast a flat gold case inset with a single large diamond. Krannon grunted and turned it over in his hands.

"A toy," he said. "What is it good for?"

"Well, when you press this button you get a light." A flame appeared through a hole in the top. Krannon started to hand it back.

"What do I need a little fire for? Here, keep it."

"Wait a second," Jason said, "that's not all it does. When you press the jewel in the center one of these comes out." A black pellet the size of his fingernail dropped into his palm. "A grenade, made of solid ulranite. Just squeeze it hard and throw. Three seconds later it explodes with enough force to blast open this building."

This time Krannon almost smiled as he reached for the case. Destructive and death-dealing weapons are like candy to a Pyrran. While he looked at it Jason made his offer.

"The case and bombs are yours if you move the date of your next delivery up to tomorrow—and let me go with you."

"Be here at 0500," Krannon said. "We leave early."

XV.

The truck rumbled up to the perimeter gate and stopped. Krannon waved to the guards through the front window, then closed a metal shield over it. When the gates swung open the truck—really a giant armored tank—ground slowly forward. There was a second gate beyond the first, that did not open until the interior one was closed. Jason looked through the second-driver's periscope as the outer gate lifted. Automatic flame-throwers flared through the opening, cutting off only when the truck reached them. A scorched area ringed the gate, beyond that the jungle began. Unconsciously Jason shrank back in his seat.

All the plants and animals he had seen only specimens of, existed here in profusion. Thorn-ringed branches and vines laced themselves into a solid mat, through which the wild life swarmed. A fury of sound hurled at them, thuds and scratchings rang on the armor. Krannon laughed and closed the switch that electrified the outer grid. The scratchings died away as the beasts completed the circuit to the grounded hull.

It was slow-speed, low-gear work tearing through the jungle. Krannon had his face buried in the periscope mask and silently fought the controls. With each mile the going seemed to get better, until he finally swung up the periscope and opened the window armor. The jungle was still thick and deadly, but nothing like the area immediately around the perimeter. It appeared as if most of the lethal powers of Pyrrus were concentrated in the single area around the settlement. Why? Jason asked himself. Why this intense and planetary hatred?

The motors died and Krannon stood up, stretching. "We're here," he said. "Let's unload."

There was bare rock around the truck, a rounded hillock that projected from the jungle, too smooth and steep for vegetation to get a hold. Krannon opened the cargo hatches and they pushed out the boxes and crates. When they finished Jason slumped down, exhausted, onto the pile.

"Get back in, we're leaving," Krannon said.

"You are, I'm staying right here."

Krannon looked at him coldly. "Get in the truck or I'll kill you. No one stays out here. For one thing you couldn't live an hour alone. But worse than

that the grubbers would get you. Kill you at once, of course, but that's not important. But you have equipment that we can't allow into their hands. You want to see a grubber with a gun?"

While the Pyrran talked, Jason's thoughts had rushed ahead. He hoped that Krannon was as thick of head as he was fast of reflex.

Jason looked at the trees, let his gaze move up through the thick branches. Though Krannon was still talking, he was automatically aware of Jason's attention. When Jason's eyes widened and his gun jumped into his hand, Krannon's own gun appeared and he turned in the same direction.

"There—in the top!" Jason shouted, and fired into the tangle of branches. Krannon fired, too. As soon as he did, Jason hurled himself backwards, curled into a ball, rolling down the inclined rock. The shots had covered the sounds of his movements, and before Krannon could turn back the gravity had dragged him down the rock into the thick foliage. Crashing branches slapped at him, but slowed his fall. When he stopped moving he was lost in the tangle. Krannon's shots came too late to hit him.

Lying there, tired and bruised, Jason heard the Pyrran cursing him out. He stamped around on the rock, fired a few shots, but knew better than to enter the trees. Finally he gave up and went back to the truck. The motor gunned into life and the treads clanked and scraped down the rock and back into the jungle. There were muted rumblings and crashes that slowly died away.

Then Jason was alone.

Up until that instant he hadn't realized quite how alone he would be. Surrounded by nothing but death, the truck already vanished from sight. He had to force down an overwhelming desire to run after it. What was done was done.

This was a long chance to take, but it was the only way to contact the grubbers. They were savages, but still they had come from human stock. And they hadn't sunk so low as to stop the barter with the civilized Pyrrans. He had to contact them, befriend them. Find out how they had managed to live safely on this madhouse world.

If there had been another way to lick the problem, he would have taken it; he didn't relish the role of martyred hero. But Kerk and his deadline had forced his hand. The contact had to be made fast and this was the only way.

There was no telling where the savages were, or how soon they would arrive. If the woods weren't too lethal he could hide there, pick his time to approach them. If they found him among the supplies, they might skewer him on the spot with a typical Pyrran reflex.

Walking warily he approached the line of trees. Something moved on a branch, but vanished as he came near. None of the plants near a thick-trunked tree looked poisonous, so he slipped behind it. There was nothing deadly in sight and it surprised him. He let his body relax a bit, leaning against the rough bark.

Something soft and choking fell over his head, his body was seized in a steel grip. The more he struggled the tighter it held him until the blood thundered in his ears and his lungs screamed for air.

Only when he grew limp did the pressure let up. His first panic ebbed a little when he realized that it wasn't an animal that attacked him. He knew nothing about the grubbers, but they were human so he still had a chance.

His arms and legs were tied, the power holster ripped from his arm. He felt strangely naked without it. The powerful hands grabbed him again and he was hurled into the air, to fall face down across something warm and soft. Fear pressed in again, it was a large animal of some kind. And all Pyrran animals were deadly.

When the animal moved off, carrying him, panic was replaced by a feeling of mounting elation. The grubbers had managed to work out a truce of some kind with at least one form of animal life. He had to find out how. If he could get that secret—and get it back to the city—it would justify all his work and pain. It might even justify Welf's death if the age-old war could be slowed or stopped.

Jason's tightly bound limbs hurt terribly at first, but grew numb with the circulation shut off. The jolting ride continued endlessly, he had no way of measuring the time. A rainfall soaked him, then he felt his clothes steaming as the sun came out.

The ride was finally over. He was pulled from the animal's back and dumped down. His arms dropped free as someone loosed the bindings. The returning circulation soaked him in pain as he lay there, struggling to move. When his hands finally obeyed him he lifted them to his face and stripped away

the covering, a sack of thick fur. Light blinded him as he sucked in breath after breath of clean air.

Blinking against the glare, he looked around. He was lying on a floor of crude planking, the setting sun shining into his eyes through the doorless entrance of the building. There was a ploughed field outside, stretching down the curve of hill to the edge of the jungle. It was too dark to see much inside the hut.

Something blocked the light of the doorway, a tall animallike figure. On second look Jason realized it was a man with long hair and thick beard. He was dressed in furs, even his legs were wrapped in fur leggings. His eyes were fixed on his captive, while one hand fondled an ax that hung from his waist.

"Who're you? What y'want?" the bearded man asked suddenly.

Jason picked his words slowly, wondering if this savage shared the same hair-trigger temper as the city dwellers.

"My name is Jason. I come in peace. I want to be your friend ..."

"Lies!" the man grunted, and pulled the ax from his belt. "Junkman tricks. I saw y'hide. Wait to kill me. Kill you first." He tested the edge of the blade with a horny thumb, then raised it.

"Wait!" Jason said desperately. "You don't understand."

The ax swung down.

"I'm from off-world and—"

A solid thunk shook him as the ax buried itself in the wood next to his head. At the last instant the man had twitched it aside. He grabbed the front of Jason's clothes and pulled him up until their faces touched.

"S'true?" he shouted. "Y'from off-world?" His hand opened and Jason dropped back before he could answer. The savage jumped over him, towards the dim rear of the hut.

"Rhes must know of this," he said as he fumbled with something on the wall. Light sprang out.

All Jason could do was stare. The hairy, fur-covered savage was operating a communicator. The calloused, dirt-encrusted fingers deftly snapped open the circuits, dialed a number.

XVI.

It made no sense. Jason tried to reconcile the modern machine with the barbarian and couldn't. Who was he calling? The existence of one communicator meant there was at least another. Was Rhes a person or a thing?

With a mental effort he grabbed hold of his thoughts and braked them to a stop. There was something new here, factors he hadn't counted on. He kept reassuring himself there was an explanation for everything, once you had your facts straight.

Jason closed his eyes, shutting out the glaring rays of the sun where it cut through the tree tops, and reconsidered his facts. They separated evenly into two classes; those he had observed for himself, and those he had learned from the city dwellers. This last class of "facts" he would hold, to see if they fitted with what he learned. There was a good chance that most, or all, of them would prove false.

"Get up," the voice jarred into his thoughts. "We're leaving."

His legs were still numb and hardly usable. The bearded man snorted in disgust and hauled him to his feet, propping him against the outer wall. Jason clutched the knobby bark of the logs when he was left alone. He looked around, soaking up impressions.

It was the first time he had been on a farm since he had run away from home. A different world with a different ecology, but the similarity was apparent enough to him. A new-sown field stretched down the hill in front of the shack. Ploughed by a good farmer. Even, well cast furrows that followed the contour of the slope. Another, larger log building was next to this one, probably a barn.

There was a snuffling sound behind him and Jason turned quickly—and froze. His hand called for the missing gun and his finger tightened down on a trigger that wasn't there.

It had come out of the jungle and padded up quietly behind him. It had six thick legs with clawed feet that dug into the ground. The two-meter long body was covered with matted yellow and black fur, all except the skull and shoulders. These were covered with overlapping horny plates. Jason could see all this because the beast was that close.

He waited to die.

The mouth opened, a froglike division of the hairless skull, revealing double rows of jagged teeth.

"Here, Fido," the bearded man said, coming up behind Jason and snapping his fingers at the same time. The thing bounded forward, brushing past the dazed Jason, and rubbed his head against the man's leg. "Nice doggy," the man said, his fingers scratching under the edge of the carapace where it joined the flesh.

The bearded man had brought two of the riding animals out of the barn, saddled and bridled. Jason barely noticed the details of smooth skin and long legs as he swung up on one. His feet were quickly lashed to the stirrups. When they started the skull-headed beast followed them.

"Nice doggy!" Jason said, and for no reason started to laugh. The bearded man turned and scowled at him until he was quiet.

By the time they entered the jungle it was dark. It was impossible to see under the thick foliage, and they used no lights. The animals seemed to know the way. There were scraping noises and shrill calls from the jungle around them, but it didn't bother Jason too much. Perhaps the automatic manner in which the other man undertook the journey reassured him. Or the presence of the "dog" that he felt rather than saw. The trip was a long one, but not too uncomfortable.

The regular motion of the animal and his fatigue overcame Jason and he dozed into a fitful sleep, waking with a start each time he slumped forward. In the end he slept sitting up in the saddle. Hours passed this way, until he opened his eyes and saw a square of light before them. The trip was over.

His legs were stiff and galled with saddle sores. After his feet were untied getting down was an effort, and he almost fell. A door opened and Jason went in. It took his eyes some moments to get used to the light, until he could make out the form of a man on the bed before him.



"Come over here and sit down." The voice was full and strong, accustomed to command. The body was that of an invalid. A blanket covered him to the waist, above that the flesh was sickly white, spotted with red nodules, and hung loosely over the bones. There seemed to be nothing left of the man except skin and skeleton.

"Not very nice," the man on the bed said, "but I've grown used to it." His tone changed abruptly. "Naxa said you were from off-world. Is that true?"

Jason nodded yes, and his answer stirred the living skeleton to life. The head lifted from the pillow and the red-rimmed eyes sought his with a desperate intensity.

"My name is Rhes and I'm a ... grubber. Will you help me?"

Jason wondered at the intensity of Rhes' question, all out of proportion to the simple content of its meaning. Yet he could see no reason to give anything other than the first and obvious answer that sprang to his lips.

"Of course I'll help you, in whatever way I can. As long as it involves no injury to anyone else. What do you want?"

The sick man's head had fallen back limply, exhausted, as Jason talked. But the fire still burned in the eyes.

"Feel assured ... I want to injure no others," Rhes said. "Quite the opposite. As you see I am suffering from a disease that our remedies will not stop. Within

a few more days I will be dead. Now I have seen ... the city people ... using a device, they press it over a wound or an animal bite. Do you have one of these machines?"

"That sounds like a description of the medikit." Jason touched the button at his waist that dropped the medikit into his hand. "I have mine here. It analyzes and treats most ..."

"Would you use it on me?" Rhes broke in, his voice suddenly urgent.

"I'm sorry," Jason said. "I should have realized." He stepped forward and pressed the machine over one of the inflamed areas on Rhes' chest. The operation light came on and the thin shaft of the analyzer probe slid down. When it withdrew the device hummed, then clicked three times as three separate hypodermic needles lanced into the skin. Then the light went out.

"Is that all?" Rhes asked, as he watched Jason stow the medikit back in his belt.

Jason nodded, then looked up and noticed the wet marks of tears on the sick man's face. Rhes became aware at the same time and brushed at them angrily.

"When a man is sick," he growled, "the body and all its senses become traitor. I don't think I have cried since I was a child—but you must realize it's not myself I'm crying for. It's the untold thousands of my people who have died for lack of that little device you treat so casually."

"Surely you have medicines, doctors of your own?"

"Herb doctors and witch doctors," Rhes said, consigning them all to oblivion with a chop of his hand. "The few hard-working and honest men are hampered by the fact that the faith healers can usually cure better than their strongest potion."

The talking had tired Rhes. He stopped suddenly and closed his eyes. On his chest, the inflamed areas were already losing their angry color as the injections took affect. Jason glanced around the room, looking for clues to the mystery of these people.

Floor and walls were made of wood lengths fitted together, free of paint or decoration. They looked simple and crude, fit only for the savages he had expected to meet. Or were they crude? The wood had a sweeping, flamelike

grain. When he bent close he saw that wax had been rubbed over the wood to bring out this pattern. Was this the act of savages—or of artistic men seeking to make the most of simple materials? The final effect was far superior to the drab paint and riveted steel rooms of the city-dwelling Pyrrans. Wasn't it true that both ends of the artistic scale were dominated by simplicity? The untutored aborigine made a simple expression of a clear idea, and created beauty. At the other extreme, the sophisticated critic rejected over-elaboration and decoration and sought the truthful clarity of uncluttered art. At which end of the scale was he looking now?

These men were savages, he had been told that. They dressed in furs and spoke a slurred and broken language, at least Naxa did. Rhes admitted he preferred faith healers to doctors. But, if all this were true, where did the communicator fit into the picture? Or the glowing ceiling that illuminated the room with a soft light?

Rhes opened his eyes and stared at Jason, as if seeing him for the first time. "Who are you?" he asked. "And what are you doing here?"

There was a cold menace in his words and Jason understood why. The city Pyrrans hated the "grubbers" and, without a doubt, the feeling was mutual. Naxa's ax had proved that. Naxa had entered silently while they talked, and stood with his fingers touching the haft of this same ax. Jason knew his life was still in jeopardy, until he gave an answer that satisfied these men.

He couldn't tell the truth. If they once suspected he was spying among them to aid the city people, it would be the end. Nevertheless, he had to be free to talk about the survival problem.

The answer hit him as soon as he had stated the problem. All this had only taken an instant to consider, as he turned back to face the invalid, and he answered at once. Trying to keep his voice normal and unconcerned.

"I'm Jason dinAlt, an ecologist, so you see I have the best reasons in the universe for visiting this planet—"

"What is an ecologist?" Rhes broke in. There was nothing in his voice to indicate whether he meant the question seriously, or as a trap. All traces of the ease of their earlier conversation were gone, his voice had the deadliness of a stingwing's poison. Jason chose his words carefully.

"Simply stated, it is that branch of biology that considers the relations

between organisms and their environment. How climatic and other factors affect the life forms, and how the life forms in turn affect each other and the environment." That much Jason knew was true—but he really knew very little more about the subject so he moved on quickly.

"I heard reports of this planet, and finally came here to study it firsthand. I did what work I could in the shelter of the city, but it wasn't enough. The people there think I'm crazy, but they finally agreed to let me make a trip out here."

"What arrangements have been made for your return?" Naxa snapped.

"None," Jason told him. "They seemed quite sure that I would be killed instantly and had no hope of me coming back. In fact, they refused to let me go and I had to break away."

This answer seemed to satisfy Rhes and his face cracked into a mirthless smile. "They would think that, those junkmen. Can't move a meter outside their own walls without an armor-plated machine as big as a barn. What did they tell you about us?"

Again Jason knew a lot depended on his answer. This time he thought carefully before speaking.

"Well ... perhaps I'll get that ax in the back of my neck for saying this ... but I have to be honest. You must know what they think. They told me you were filthy and ignorant savages who smelled. And you ... well, had curious customs you practiced with the animals. In exchange for food, they traded you beads and knives ..."

Both Pyrrans broke into a convulsion of laughter at this. Rhes stopped soon, from weakness, but Naxa laughed himself into a coughing fit and had to splash water over his head from a gourd jug.

"That I believe well enough," Rhes said, "it sounds like the stupidity they would talk. Those people know nothing of the world they live in. I hope the rest of what you said is true, but even if it is not, you are welcome here. You are from off-world, that I know. No junkman would have lifted a finger to save my life. You are the first off-worlder my people have ever known and for that you are doubly welcome. We will help you in any way we can. My arm is your arm."

These last words had a ritual sound to them, and when Jason repeated them, Naxa nodded at the correctness of this. At the same time, Jason felt that they were more than empty ritual. Interdependence meant survival on Pyrrus, and he

knew that these people stood together to the death against the mortal dangers around them. He hoped the ritual would include him in that protective sphere.

"That is enough for tonight," Rhes said. "The spotted sickness had weakened me, and your medicine has turned me to jelly. You will stay here, Jason. There is a blanket, but no bed at least for now."

Enthusiasm had carried Jason this far, making him forget the two-gee exertions of the long day. Now fatigue hit him a physical blow. He had dim memories of refusing food and rolling in the blanket on the floor. After that, oblivion.

XVII.

Every square inch of his body ached where the doubled gravity had pressed his flesh to the unyielding wood of the floor. His eyes were gummy and his mouth was filled with an indescribable taste that came off in chunks. Sitting up was an effort and he had to stifle a groan as his joints cracked.

"Good day, Jason," Rhes called from the bed. "If I didn't believe in medicine so strongly, I would be tempted to say there is a miracle in your machine that has cured me overnight."

There was no doubt that he was on the mend. The inflamed patches had vanished and the burning light was gone from his eyes. He sat, propped up on the bed, watching the morning sun melt the night's hailstorm into the fields.

"There's meat in the cabinet there," he said, "and either water or visk to drink."

The visk proved to be a distilled beverage of extraordinary potency that instantly cleared the fog from Jason's brain, though it did leave a slight ringing in his ears. And the meat was a tenderly smoked joint, the best food he had tasted since leaving Darkhan. Taken together they restored his faith in life and the future. He lowered his glass with a relaxed sigh and looked around.

With the pressures of immediate survival and exhaustion removed, his thoughts returned automatically to his problem. What were these people really like—and how had they managed to survive in the deadly wilderness? In the city he had been told they were savages. Yet there was a carefully tended and repaired communicator on the wall. And by the door a crossbow—that fired machined metal bolts, he could see the tool marks still visible on their shanks. The one thing he needed was more information. He could start by getting rid of some of his misinformation.

"Rhes, you laughed when I told you what the city people said, about trading you trinkets for food. What do they really trade you?"

"Anything within certain limits," Rhes said. "Small manufactured items, such as electronic components for our communicators. Rustless alloys we can't make in our forges, cutting tools, atomic electric converters that produce power from any radioactive element. Things like that. Within reason they'll trade anything we ask that isn't on the forbidden list. They need the food badly."

"And the items on the forbidden list—?"

"Weapons, of course, or anything that might be made into a powerful weapon. They know we make gunpowder so we can't get anything like large castings or seamless tubing we could make into heavy gun barrels. We drill our own rifle barrels by hand, though the crossbow is quiet and faster in the jungle. Then they don't like us to know very much, so the only reading matter that gets to us are tech maintenance manuals, empty of basic theory.

"The last banned category you know about—medicine. This is the one thing I cannot understand, that makes me burn with hatred with every death they might have prevented."

"I know their reasons," Jason said.

"Then tell me, because I can think of none."

"Survival—it's just that simple. I doubt if you realize it, but they have a decreasing population. It is just a matter of years before they will be gone. Whereas your people at least must have a stable—if not slightly growing population—to have existed without their mechanical protections. So in the city they hate you and are jealous of you at the same time. If they gave you medicine and you prospered, you would be winning the battle they have lost. I imagine they tolerate you as a necessary evil, to supply them with food, otherwise they wish you were all dead."

"It makes sense," Rhes growled, slamming his fist against the bed. "The kind of twisted logic you expect from junkmen. They use us to feed them, give us the absolute minimum in return, and at the same time cut us off from the knowledge that will get us out of this hand to mouth existence. Worse, far worse, they cut us off from the stars and the rest of mankind." The hatred on his face was so strong that Jason unconsciously drew back.

"Do you think we are savages here, Jason? We act and look like animals because we have to fight for existence on an animal level. Yet we know about the stars. In that chest over there, sealed in metal, are over thirty books, all we have. Fiction most of them, with some history and general science thrown in. Enough to keep alive the stories of the settlement here and the rest of the universe outside. We see the ships land in the city and we know that up there are worlds we can only dream about and never see. Do you wonder that we hate these beasts that call themselves men, and would destroy them in an instant if

we could? They are right to keep weapons from us—for sure as the sun rises in the morning we would kill them to a man if we were able, and take over the things they have withheld from us."

It was a harsh condemnation, but essentially a truthful one. At least from the point of view of the outsiders. Jason didn't try to explain to the angry man that the city Pyrrans looked on their attitude as being the only possible and logical one. "How did this battle between your two groups ever come about?" he asked.

"I don't know," Rhes said, "I've thought about it many times, but there are no records of that period. We do know that we are all descended from colonists who arrived at the same time. Somewhere, at some time, the two groups separated. Perhaps it was a war, I've read about them in the books. I have a partial theory, though I can't prove it, that it was the location of the city."

"Location—I don't understand."

"Well, you know the junkmen, and you've seen where their city is. They managed to put it right in the middle of the most savage spot on this planet. You know they don't care about any living thing except themselves, shoot and kill is their only logic. So they wouldn't consider where to build their city, and managed to build it in the stupidest spot imaginable. I'm sure my ancestors saw how foolish this was and tried to tell them so. That would be reason enough for a war, wouldn't it?"

"It might have been—if that's really what happened," Jason said. "But I think you have the problem turned backwards. It's a war between native Pyrran life and humans, each fighting to destroy the other. The life forms change continually, seeking that final destruction of the invader."

"Your theory is even wilder than mine," Rhes said. "That's not true at all. I admit that life isn't too easy on this planet ... if what I have read in the books about other planets is true ... but it doesn't change. You have to be fast on your feet and keep your eyes open for anything bigger than you, but you can survive. Anyway, it doesn't really matter why. The junkmen always look for trouble and I'm happy to see that they have enough."

Jason didn't try to press the point. The effort of forcing Rhes to change his basic attitudes wasn't worth it—even if possible. He hadn't succeeded in

convincing anyone in the city of the lethal mutations even when they could observe all the facts. Rhes could still supply information though.



"I suppose it's not important who started the battle," Jason said for the other man's benefit, not meaning a word of it, "but you'll have to agree that the city people are permanently at war with all the local life. Your people, though, have managed to befriend at least two species that I have seen. Do you have any idea how this was done?"

"Naxa will be here in a minute," Rhes said, pointing to the door, "as soon as he's taken care of the animals. Ask him. He's the best talker we have."

"Talker?" Jason asked. "I had the opposite idea about him. He didn't talk much, and what he did say was, well ... a little hard to understand at times."

"Not that kind of talking." Rhes broke in impatiently. "The talkers look after the animals. They train the dogs and doryms, and the better ones like Naxa are always trying to work with other beasts. They dress crudely, but they have to. I've heard them say that the animals don't like chemicals, metal or tanned leather, so they wear untanned furs for the most part. But don't let the dirt fool you, it has nothing to do with his intelligence."

"Doryms? Are those your carrying beasts—the kind we rode coming here?"

Rhes nodded. "Doryms are more than pack animals, they're really a little bit of everything. The large males pull the ploughs and other machines, while the younger animals are used for meat. If you want to know more, ask Naxa, you'll find him in the barn."

"I'd like to do that," Jason said, standing up. "Only I feel undressed without my gun—"

"Take it, by all means, it's in that chest by the door. Only watch out what

you shoot around here."

Naxa was in the rear of the barn, filing down one of the spadelike toenails of a dorym. It was a strange scene. The fur-dressed man with the great beast—and the contrast of a beryllium-copper file and electroluminescent plates lighting the work.

The dorym opened its nostrils and pulled away when Jason entered; Naxa patted its neck and talked softly until it quieted and stood still, shivering slightly.

Something stirred in Jason's mind, with the feeling of a long unused muscle being stressed. A hauntingly familiar sensation.

"Good morning," Jason said. Naxa grunted something and went back to his filing. Watching him for a few minutes, Jason tried to analyze this new feeling. It itched and slipped aside when he reached for it, escaping him. Whatever it was, it had started when Naxa had talked to the dorym.

"Could you call one of the dogs in here, Naxa? I'd like to see one closer up."

Without raising his head from his work, Naxa gave a low whistle. Jason was sure it couldn't have been heard outside of the barn. Yet within a minute one of the Pyrran dogs slipped quietly in. The talker rubbed the beast's head, mumbling to it, while the animal looked intently into his eyes.

The dog became restless when Naxa turned back to work on the dorym. It prowled around the barn, sniffing, then moved quickly towards the open door. Jason called it back.

At least he meant to call it. At the last moment he said nothing. Nothing aloud. On sudden impulse he kept his mouth closed—only he called the dog with his mind. Thinking the words *come here*, directing the impulse at the animal with all the force and direction he had ever used to manipulate dice. As he did it he realized it had been a long time since he had even considered using his psi powers.

The dog stopped and turned back towards him.

It hesitated, looking at Naxa, then walked over to Jason.

Seen this closely the beast was a nightmare hound. The hairless protective plates, tiny red-rimmed eyes, and countless, saliva-dripping teeth did little to

inspire confidence. Yet Jason felt no fear. There was a rapport between man and animal that was understood. Without conscious thought he reached out and scratched the dog along the back, where he knew it itched.

"Didn't know y're a talker," Naxa said. As he watched them, there was friendship in his voice for the first time.

"I didn't know either—until just now," Jason said. He looked into the eyes of the animal before him, scratched the ridged and ugly back, and began to understand.

The talkers must have well developed psi facilities, that was obvious now. There is no barrier of race or alien form when two creatures share each other's emotions. Empathy first, so there would be no hatred or fear. After that direct communication. The talkers might have been the ones who first broke through the barrier of hatred on Pyrrus and learned to live with the native life. Others could have followed their example—this might explain how the community of "grubbers" had been formed.

Now that he was concentrating on it, Jason was aware of the soft flow of thoughts around him. The consciousness of the dorym was matched by other like patterns from the rear of the barn. He knew without going outside that more of the big beasts were in the field back there.

"This is all new to me," Jason said. "Have you ever thought about it, Naxa? What does it feel like to be a talker? I mean, do you *know* why it is you can get the animals to obey you while other people have no luck at all?"

Thinking of this sort troubled Naxa. He ran his fingers through his thick hair and scowled as he answered. "Nev'r thought about it. Just do it. Just get t'know the beast real good, then y'can guess what they're going t'do. That's all."

It was obvious that Naxa had never thought about the origin of his ability to control the animals. And if he hadn't—probably no one else had. They had no reason to. They simply accepted the powers of talkers as one of the facts of life.

Ideas slipped towards each other in his mind, like the pieces of a puzzle joining together. He had told Kerk that the native life of Pyrrus had joined in battle against mankind, he didn't know why. Well—he still didn't know why, but he was getting an idea of the "how."

"About how far are we from the city?" Jason asked. "Do you have an idea how long it would take us to get there by dorym?"

"Half a day there—half back. Why? Y'want to go?"

"I don't want to get into the city, not yet. But I would like to get close to it," Jason told him.

"See what Rhes say," was Naxa's answer.

Rhes granted instant permission without asking any questions. They saddled up and left at once, in order to complete the round trip before dark.

They had been traveling less than an hour before Jason knew they were going in the direction of the city. With each minute the feeling grew stronger. Naxa was aware of it too, stirring in the saddle with unvoiced feelings. They had to keep touching and reassuring their mounts which were growing skittish and restless.

"This is far enough," Jason said. Naxa gratefully pulled to a stop.

The wordless thought beat through Jason's mind, filling it. He could feel it on all sides—only much stronger ahead of them in the direction of the unseen city. Naxa and the doryms reacted in the same way, restlessly uncomfortable, not knowing the cause.

One thing was obvious now. The Pyrran animals were sensitive to psi radiation—probably the plants and lower life forms as well. Perhaps they communicated by it, since they obeyed the men who had a strong control of it. And in this area was a wash of psi radiation such as he had never experienced before. Though his personal talents specialized in psychokinesis—the mental control of inanimate matter—he was still sensitive to most mental phenomena. Watching a sports event he had many times felt the unanimous accord of many minds expressing the same thought. What he felt now was like that.

Only terribly different. A crowd exulted at some success on the field, or groaned at a failure. The feeling fluxed and changed as the game progressed. Here the wash of thought was unending, strong and frightening. It didn't translate into words very well. It was part hatred, part fear—and all destruction.

"*KILL THE ENEMY*" was as close as Jason could express it. But it was more than that. An unending river of mental outrage and death.

"Let's go back now," he said, suddenly battered and sickened by the feelings he had let wash through him. As they started the return trip he began to understand many things.

His sudden unspeakable fear when the Pyrran animal had attacked him that first day on the planet. And his recurrent nightmares that had never completely ceased, even with drugs. Both of these were his reaction to the hatred directed at the city. Though for some reason he hadn't felt it directly up to now, enough had reached through to him to get a strong emotional reaction.

Rhes was asleep when they got back and Jason couldn't talk to him until morning. In spite of his fatigue from the trip, he stayed awake late into the night, going over in his mind the discoveries of the day. Could he tell Rhes what he had found out? Not very well. If he did that, he would have to explain the importance of his discovery and what he meant to use it for. Nothing that aided the city dwellers would appeal to Rhes in the slightest. Best to say nothing until the entire affair was over.

XVIII.

After breakfast he told Rhes that he wanted to return to the city.

"Then you have seen enough of our barbarian world, and wish to go back to your friends. To help them wipe us out perhaps?" Rhes said it lightly, but there was a touch of cold malice behind his words.

"I hope you don't really think that," Jason told him. "You must realize that the opposite is true. I would like to see this civil war ended and your people getting all the benefits of science and medicine that have been withheld. I'll do everything I can to bring that about."

"They'll never change," Rhes said gloomily, "so don't waste your time. But there is one thing you must do, for your protection and ours. Don't admit, or even hint, that you've talked to any grubbers!"

"Why not?"

"Why not! Suffering death are you that simple! They will do anything to see that we don't rise too high, and would much prefer to see us all dead. Do you think they would hesitate to kill you if they as much as suspected you had contacted us? They realize—even if you don't—that you can singlehandedly alter the entire pattern of power on this planet. The ordinary junkman may think of us as being only one step above the animals, but the leaders don't. They know what we need and what we want. They could probably guess just what it is I am going to ask you.

"Help us, Jason dinAlt. Get back among those human pigs and lie. Say you never talked to us, that you hid in the forest and we attacked you and you had to shoot to save yourself. We'll supply some recent corpses to make that part of your story sound good. Make them believe you, and even after you think you have them convinced keep on acting the part because they will be watching you. Then tell them you have finished your work and are ready to leave. Get safely off Pyrrus, to another planet, and I promise you anything in the universe. Whatever you want you shall have. Power, money—*anything*.

"This is a rich planet. The junkmen mine and sell the metal, but we could do it much better. Bring a spaceship back here and land anywhere on this continent. We have no cities, but our people have farms everywhere, they will find you. We will then have commerce, trade—on our own. This is what we all

want and we will work hard for it. And *you* will have done it. Whatever you want we will give. That is a promise and we do not break our promises."

The intensity and magnitude of what he described rocked Jason. He knew that Rhes spoke the truth and the entire resources of the planet would be his, if he did as asked. For one second he was tempted, savoring the thought of what it would be like. Then came realization that it would be a half answer, and a poor one at that. If these people had the strength they wanted, their first act would be the attempted destruction of the city men. The result would be bloody civil war that would probably destroy them both. Rhes' answer was a good one—but only half an answer.

Jason had to find a better solution. One that would stop *all* the fighting on this planet and allow the two groups of humans to live in peace.

"I will do nothing to injure your people, Rhes—and everything in my power to aid them," Jason said.

This half answer satisfied Rhes, who could see only one interpretation of it. He spent the rest of the morning on the communicator, arranging for the food supplies that were being brought to the trading site.

"The supplies are ready and we have sent the signal," he said. "The truck will be there tomorrow and you will be waiting for it. Everything is arranged as I told you. You'll leave now with Naxa. You must reach the meeting spot before the trucks."

XIX.

"Trucks almost here. Y'know what to do?" Naxa asked.

Jason nodded, and looked again at the dead man. Some beast had torn his arm off and he had bled to death. The severed arm had been tied into the shirt sleeve, so from a distance it looked normal. Seen close up this limp arm, plus the white skin and shocked expression on the face, gave Jason an unhappy sensation. He liked to see his corpses safely buried. However he could understand its importance today.

"Here they're. Wait until his back's turned," Naxa whispered.

The armored truck had three powered trailers in tow this time. The train ground up the rock slope and whined to a stop. Krannon climbed out of the cab and looked carefully around before opening up the trailers. He had a lift robot along to help him with the loading.

"Now!" Naxa hissed.

Jason burst into the clearing, running, shouting Krannon's name. There was a crackling behind him as two of the hidden men hurled the corpse through the foliage after him. He turned and fired without stopping, setting the thing afire in midair.

There was the crack of another gun as Krannon fired, his shot jarred the twice-dead corpse before it hit the ground. Then he was lying prone, firing into the trees behind the running Jason.

Just as Jason reached the truck there was a whirring in the air and hot pain ripped into his back, throwing him to the ground. He looked around as Krannon dragged him through the door, and saw the metal shaft of a crossbow bolt sticking out of his shoulder.

"Lucky," the Pyrran said. "An inch lower would have got your heart. I warned you about those grubbers. You're lucky to get off with only this." He lay next to the door and snapped shots into the now quiet wood.

Taking out the bolt hurt much more than it had going in. Jason cursed the pain as Krannon put on a dressing, and admired the singleness of purpose of the people who had shot him. They had risked his life to make his escape look real. And also risked the chance that he might turn against them after being shot. They did a job completely and thoroughly and he cursed them for their

efficiency.

Krannon climbed warily out of the truck, after Jason was bandaged. Finishing the loading quickly, he started the train of trailers back towards the city. Jason had an anti-pain shot and dozed off as soon as they started.

While he slept, Krannon must have radioed ahead, because Kerk was waiting when they arrived. As soon as the truck entered the perimeter he threw open the door and dragged Jason out. The bandage pulled and Jason felt the wound tear open. He ground his teeth together; Kerk would not have the satisfaction of hearing him cry out.

"I told you to stay in the buildings until the ship left. Why did you leave? Why did you go outside? You talked to the grubbers—didn't you?" With each question he shook Jason again.

"I didn't talk to—anyone." Jason managed to get the words out. "They tried to take me, I shot two—hid out until the trucks came back."

"Got another one then," Krannon said. "I saw it. Good shooting. Think I got some, too. Let him go Kerk, they shot him in the back before he could reach the truck."

That's enough explanations, Jason thought to himself. *Don't overdo it. Let him make up his mind later. Now's the time to change the subject. There's one thing that will get his mind off the grubbers.*

"I've been fighting your war for you Kerk, while you stayed safely inside the perimeter." Jason leaned back against the side of the truck as the other loosened his grip. "I've found out what your battle with this planet is really about—and how you can win it. Now let me sit down and I'll tell you."

More Pyrrans had come up while they talked. None of them moved now. Like Kerk, they stood frozen, looking at Jason. When Kerk talked, he spoke for all of them.

"*What do you mean?*"

"Just what I said. Pyrrus is fighting you—actively and consciously. Get far enough out from this city and you can feel the waves of hatred that are directed at it. No, that's wrong—you can't because you've grown up with it. But I can, and so could anyone else with any sort of psi sensitivity. There is a message of war being beamed against you constantly. The life forms of this planet are psi-

sensitive, and respond to that order. They attack and change and mutate for your destruction. And they'll keep on doing so until you are all dead. Unless you can stop the war."

"How?" Kerk snapped the word and every face echoed the question.

"By finding whoever or whatever is sending that message. The life forms that attack you have no reasoning intelligence. They are being ordered to do so. I think I know how to find the source of these orders. After that it will be a matter of getting across a message, asking for a truce and an eventual end to all hostilities."

A dead silence followed his words as the Pyrrans tried to comprehend the ideas. Kerk moved first, waving them all away.

"Go back to your work. This is my responsibility and I'll take care of it. As soon as I find out what truth there is here—if any—I'll make a complete report." The people drifted away silently, looking back as they went.



XX.

FROM the beginning now," Kerk said. "And leave out nothing."

"There is very little more that I can add to the physical facts. I saw the animals, understood the message. I even experimented with some of them and they reacted to my mental commands. What I must do now is track down the source of the orders that keep this war going.

"I'll tell you something that I have never told anyone else. I'm not only lucky at gambling. I have enough psi ability to alter probability in my favor. It's an erratic ability that I have tried to improve for obvious reasons. During the past ten years I managed to study at all of the centers that do psi research. Compared to other fields of knowledge it is amazing how little they know. Basic psi talents can be improved by practice, and some machines have been devised that act as psionic amplifiers. One of these, used correctly, is a very good directional indicator."

"You want to build this machine?" Kerk asked.

"Exactly. Build it and take it outside the city in the ship. Any signal strong enough to keep this centuries-old battle going should be strong enough to track down. I'll follow it, contact the creatures who are sending it, and try to find out why they are doing it. I assume you'll go along with any reasonable plan that will end this war?"

"Anything reasonable," Kerk said coldly. "How long will it take you to build this machine?"

"Just a few days if you have all the parts here," Jason told him.

"Then do it. I'm canceling the flight that's leaving now and I'll keep the ship here, ready to go. When the machine is built I want you to track the signal and report back to me."

"Agreed," Jason said, standing up. "As soon as I have this hole in my back looked at I'll draw up a list of things needed."

A grim, unsmiling man named Skop was assigned to Jason as a combination guide and guard. He took his job very seriously, and it didn't take Jason long to realize that he was a prisoner-at-large. Kerk had accepted his story, but that was no guarantee that he believed it. At a single word from him, the guard could turn executioner.

The chill thought hit Jason that undoubtedly this was what would happen. Whether Kerk accepted the story or not—he couldn't afford to take a chance. As long as there was the slightest possibility Jason had contacted the grubbers, he could not be allowed to leave the planet alive. The woods people were being simple if they thought a plan this obvious might succeed. Or had they just gambled on the very long chance it might work? *They* certainly had nothing to lose by it.

Only half of Jason's mind was occupied with the work as he drew up a list of materials he would need for the psionic direction finder. His thoughts plodded in tight circles, searching for a way out that didn't exist. He was too deeply involved now to just leave. Kerk would see to that. Unless he could find a way to end the war and settle the grubber question he was marooned on Pyrrus for life. A very short life.

When the list was ready he called Supply. With a few substitutions, everything he might possibly need was in stock, and would be sent over. Skop sank into an apparent doze in his chair and Jason, his head propped against the pull of gravity by one arm, began a working sketch of his machine.

Jason looked up suddenly, aware of the silence. He could hear machinery in the building and voices in the hall outside. What kind of silence then—?

Mental silence. He had been so preoccupied since his return to the city that he hadn't noticed the complete lack of any kind of psi sensation. The constant wash of animal reactions was missing, as was the vague tactile awareness of his PK. With sudden realization he remembered that it was always this way inside the city.

He tried to listen with his mind—and stopped almost before he began. There was a constant press of thought about him that he was made aware of when he reached out. It was like being in a vessel far beneath the ocean, with your hand on the door that held back the frightening pressure. Touching the door, without opening it, you could feel the stresses, the power pushing in and waiting to crush you. It was this way with the psi pressure on the city. The unvoiced hate-filled screams of Pyrrus would instantly destroy any mind that received them. Some function of his brain acted as a psi-circuit breaker, shutting off awareness before his mind could be blasted. There was just enough leak-through to keep him aware of the pressure—and supply the raw materials

for his constant nightmares.

There was only one fringe benefit. The lack of thought pressure made it easier for him to concentrate. In spite of his fatigue the diagram developed swiftly.

Meta arrived late that afternoon, bringing the parts he had ordered. She slid the long box onto the workbench, started to speak, but changed her mind and said nothing. Jason looked up at her and smiled.

"Confused?" he asked.

"I don't know what you mean," she said, "I'm not confused. Just annoyed. The regular trip has been canceled and our supply schedule will be thrown off for months to come. And instead of piloting or perimeter assignment all I can do is stand around and wait for you. Then take some silly flight following your directions. Do you wonder that I'm annoyed?"

Jason carefully set the parts out on the chassis before he spoke. "As I said, you're confused. I can point out how you're confused—which will make you even more confused. A temptation that I frankly find hard to resist."

She looked across the bench at him, frowning. One finger unconsciously curling and uncurling a short lock of hair. Jason liked her this way. As a Pyrran operating at full blast she had as much personality as a gear in a machine. Once out of that pattern she reminded him more of the girl he had known on that first flight to Pyrrus. He wondered if it was possible to really get across to her what he meant.

"I'm not being insulting when I say 'confused,' Meta. With your background you couldn't be any other way. You have an insular personality. Admittedly, Pyrrus is an unusual island with a lot of high-power problems that you are an expert at solving. That doesn't make it any less of an island. When you face a cosmopolitan problem you are confused. Or even worse, when your island problems are put into a bigger context. That's like playing your own game, only having the rules change constantly as you go along."

"You're talking nonsense," she snapped at him. "Pyrrus isn't an island and battling for survival is definitely not a game."

"I'm sorry," he smiled. "I was using a figure of speech, and a badly chosen one at that. Let's put the problem on more concrete terms. Take an example.

Suppose I were to tell you that over there, hanging from the doorframe, was a stingwing—"

Meta's gun was pointing at the door before he finished the last word. There was a crash as the guard's chair went over. He had jumped from a half-doze to full alertness in an instant, his gun also searching the doorframe.

"That was just an example," Jason said. "There's really nothing there." The guard's gun vanished and he scowled a look of contempt at Jason, as he righted the chair and dropped into it.

"You both have proved yourself capable of handling a Pyrran problem." Jason continued. "But what if I said that there is a thing hanging from the doorframe that *looks* like a stingwing, but is really a kind of large insect that spins a fine silk that can be used to weave clothes?"

The guard glared from under his thick eyebrows at the empty doorframe, his gun whined part way out, then snapped back into the holster. He growled something inaudible at Jason, then stamped into the outer room, slamming the door behind him. Meta frowned in concentration and looked puzzled.

"It couldn't be anything except a stingwing," she finally said. "Nothing else could possibly look like that. And even if it didn't spin silk, it would bite if you got near, so you would have to kill it." She smiled with satisfaction at the indestructible logic of her answer.

"Wrong again," Jason said. "I just described the mimic-spinner that lives on Stover's Planet. It imitates the most violent forms of life there, does such a good job that it has no need for other defenses. It'll sit quietly on your hand and spin for you by the yard. If I dropped a shipload of them here on Pyrrus, you never could be sure when to shoot, could you?"

"But they are not here now," Meta insisted.

"Yet they could be quite easily. And if they were, all the rules of your game would change. Getting the idea now? There are some fixed laws and rules in the galaxy—but they're not the ones you live by. Your rule is war unending with the local life. I want to step outside your rule book and end that war. Wouldn't you like that? Wouldn't you like an existence that was more than just an endless battle for survival? A life with a chance for happiness, love, music, art—all the enjoyable things you have never had the time for."

All the Pyrran sternness was gone from her face as she listened to what he

said, letting herself follow these alien concepts. He had put his hand out automatically as he talked, and had taken hers. It was warm and her pulse fast to his touch.

Meta suddenly became conscious of his hand and snapped hers away, rising to her feet at the same time. As she started blindly towards the door, Jason's voice snapped after her.

"The guard, Skop, ran out because he didn't want to lose his precious two-value logic. It's all he has. But you've seen other parts of the galaxy, Meta, you know there is a lot more to life than kill-and-be-killed on Pyrrus. You feel it is true, even if you won't admit it."

She turned and ran out the door.

Jason looked after her, his hand scraping the bristle on his chin thoughtfully. "Meta, I have the faint hope that the woman is winning over the Pyrran. I think that I saw—perhaps for the first time in the history of this bloody war-torn city—a tear in one of its citizen's eyes."

XXI.

"Drop that equipment and Kerk will undoubtedly pull both your arms off," Jason said. "He's over there now, looking as sorry as possible that I ever talked him into this."

Skop cursed under the bulky mass of the psi detector, passing it up to Meta who waited in the open port of the spaceship. Jason supervised the loading, and blasted all the local life that came to investigate. Horndevils were thick this morning and he shot four of them. He was last aboard and closed the lock behind him.

"Where are you going to install it?" Meta asked.

"You tell me," Jason said. "I need a spot for the antenna where there will be no dense metal in front of the bowl to interfere with the signal. Thin plastic will do, or if worst comes to worst I can mount it outside the hull with a remote drive."

"You may have to," she said. "The hull is an unbroken unit, we do all viewing by screen and instruments. I don't think ... wait ... there is one place that might do."

She led the way to a bulge in the hull that marked one of the lifeboats. They went in through the always-open lock, Skop struggling after them with the apparatus.

"These lifeboats are half buried in the ship," Meta explained. "They have transparent front ports covered by friction shields that withdraw automatically when the boat is launched."

"Can we pull back the shields now?"

"I think so," she said. She traced the launching circuits to a junction box and opened the lid. When she closed the shield relay manually, the heavy plates slipped back into the hull. There was a clear view, since most of the viewport projected beyond the parent ship.

"Perfect," Jason said. "I'll set up here. Now how do I talk to you in the ship?"

"Right here," she said. "There's a pre-tuned setting on this communicator. Don't touch anything else—and particularly not this switch." She pointed to a large pull-handle set square into the center of the control board. "Emergency

launching. Two seconds after that is pulled the lifeboat is shot free. And it so happens this boat has no fuel."

"Hands off for sure," Jason said. "Now have Husky there run me in a line with ship's power and I'll get this stuff set up."

The detector was simple, though the tuning had to be precise. A dish-shaped antenna pulled in the signal for the delicately balanced detector. There was a sharp fall-off on both sides of the input so direction could be precisely determined. The resulting signal was fed to an amplifier stage. Unlike the electronic components of the first stage, this one was drawn in symbols on white paper. Carefully glued-on input and output leads ran to it.

When everything was ready and clamped into place, Jason nodded to Meta's image on the screen. "Take her up—and easy please. None of your nine-G specials. Go into a slow circle around the perimeter, until I tell you differently."

Under steady power the ship lifted and grabbed for altitude, then eased into its circular course. They made five circuits of the city before Jason shook his head.

"The thing seems to be working fine, but we're getting too much noise from all the local life. Get thirty kilometers out from the city and start a new circuit."



The results were better this time. A powerful signal came from the direction of the city, confined to less than a degree of arc. With the antenna fixed at a right angle to the direction of the ship's flight, the signal was fairly constant. Meta rotated the ship on its main axis, until Jason's lifeboat was directly below.

"Going fine now," he said. "Just hold your controls as they are and keep the nose from drifting."

After making a careful mark on the setting circle, Jason turned the receiving antenna through one hundred eighty degrees of arc. As the ship kept to its circle, he made a slow collecting sweep of any signals beamed at the city. They were halfway around before he got a new signal.

It was there all right, narrow but strong. Just to be sure he let the ship complete two more sweeps, and he noted the direction on the gyro-compass each time. They coincided. The third time around he called to Meta.

"Get ready for a full right turn, or whatever you call it. I think I have our bearing. Get ready—*now*."

It was a slow turn and Jason never lost the signal. A few times it wavered, but he brought it back on. When the compass settled down Meta pushed on more power.

They set their course towards the native Pyrrans.

An hour's flight at close to top atmospheric speed brought no change. Meta complained, but Jason kept her on course. The signal never varied and was slowly picking up strength. They crossed the chain of volcanoes that marked the continental limits, the ship bucking in the fierce thermals. Once the shore was behind and they were over water, Skop joined Meta in grumbling. He kept his turret spinning, but there was very little to shoot at this far from land.

When the islands came over the horizon the signal began to dip.

"Slow now," Jason called. "Those islands ahead look like our source!"

A continent had been here once, floating on Pyrrus' liquid core. Pressures changed, land masses shifted, and the continent had sunk beneath the ocean. All that was left now of the teeming life of that land mass was confined to a chain of islands, once the mountain peaks of the highest range of mountains. These islands, whose sheer, sides rose straight from the water, held the last inhabitants of the lost continent. The weeded-out descendants, of the victors of uncountable violent contests. Here lived the oldest native Pyrrans.

"Come in lower," Jason signaled. "Towards that large peak. The signals seem to originate there."

They swooped low over the mountain, but nothing was visible other than the trees and sun-blasted rock.

The pain almost took Jason's head off. A blast of hatred that drove through the amplifier and into his skull. He tore off the phones, and clutched his skull

between his hands. Through watering eyes he saw the black cloud of flying beasts hurtle up from the trees below. He had a single glimpse of the hillside beyond, before Meta blasted power to the engines and the ship leaped away.

"We've found them!" Her fierce exultation faded as she saw Jason through the communicator. "Are you all right? What happened?"

"Feel ... burned out ... I've felt a psi blast before, but nothing like that! I had a glimpse of an opening, looked like a cave mouth, just before the blast hit. Seemed to come from there."

"Lie down," Meta said. "I'll get you back as fast as I can. I'm calling ahead to Kerk, he has to know what happened."

A group of men were waiting in the landing station when they came down. They stormed out as soon as the ship touched, shielding their faces from the still-hot tubes. Kerk burst in as soon as the port was cracked, peering around until he spotted Jason stretched out on an acceleration couch.

"Is it true?" he barked. "You've traced the alien criminals who started this war?"

"Slow, man, slow," Jason said. "I've traced the source of the psi message that keeps your war going. I've found no evidence as to who started this war, and certainly wouldn't go so far as to call them criminals—"

"I'm tired of your word-play," Kerk broke in. "You've found these creatures and their location has been marked."

"On the chart," Meta said, "I could fly there blindfolded."

"Fine, fine," Kerk said, rubbing his hands together so hard they could hear the harsh rasp of the callouses. "It takes a real effort to grasp the idea that, after all these centuries, the war might be coming to an end. But it's possible now. Instead of simply killing off these self-renewing legions of the damned that attack us, we can get to the leaders. Search them out, carry the war to them for a change—and blast their stain from the face of this planet!"

"Nothing of the sort!" Jason said, sitting up with an effort. "Nothing doing! Since I came to this planet I have been knocked around, and risked my life ten times over. Do you think I have done this just to satisfy your blood-thirsty ambitions? It's peace I'm after—not destruction. You promised to contact these creatures, attempt to negotiate with them. Aren't you a man of honor who keeps

his word?"

"I'll ignore the insult—though I'd have killed you for it at any other time," Kerk said. "You've been of great service to our people, we are not ashamed to acknowledge an honest debt. At the same time—do not accuse me of breaking promises that I never made. I recall my exact words. I promised to go along with any reasonable plan that would end this war. That is just what I intend to do. Your plan to negotiate a peace is not reasonable. Therefore we are going to destroy the enemy."

"Think first," Jason called after Kerk, who had turned to leave. "What is wrong with trying negotiation or an armistice? Then, if that fails, you can try your way."

The compartment was getting crowded as other Pyrrans pushed in. Kerk, almost to the door, turned back to face Jason.

"I'll tell you what's wrong with armistice," he said. "It's a coward's way out, that's what it is. It's all right for you to suggest it, you're from off-world and don't know any better. But do you honestly think I could entertain such a defeatist notion for one instant? When I speak, I speak not only for myself, but for all of us here. We don't mind fighting, and we know how to do it. We know that if this war was over we could build a better world here. At the same time, if we have the choice of continued war or a cowardly peace—*we vote for war*. This war will only be over when the enemy is utterly destroyed!"

The listening Pyrrans shouted in agreement, and when Kerk pushed out through the crowd some of them patted his shoulder as he went by. Jason slumped back on the couch, worn out by his exertions and exhausted by the attempt to win the violent Pyrrans over to a peaceful point of view.

When he looked up they were gone—all except Meta. She had the same look of blood-thirsty elation as the others, but it drained away when she glanced at him.

"What about it, Meta?" he asked bitterly. "No doubts? Do you think that destruction is the only way to end this war?"

"I don't know," she said. "I can't be sure. For the first time in my life I find myself with more than one answer to the same question."

"Congratulations," he said. "It's a sign of growing up."

XXII.

Jason stood to one side and watched the deadly cargo being loaded into the hold of the ship. The Pyrrans were in good humor as they stowed away riot guns, grenades and gas bombs. When the back-pack atom bomb was put aboard one of them broke into a marching song, and the others picked it up. Maybe they were happy, but the approaching carnage only filled Jason with an intense gloom. He felt that somehow he was a traitor to life. Perhaps the life form he had found needed destroying—and perhaps it didn't. Without making the slightest attempt at conciliation, destruction would be plain murder.

Kerk came out of the operations building and the starter pumps could be heard whining inside the ship. They would leave within minutes. Jason forced himself into a foot-dragging rush and met Kerk halfway to the ship.

"I'm coming with you, Kerk. You owe me at least that much for finding them."

Kerk hesitated, not liking the idea. "This is an operational mission," he said. "No room for observers, and the extra weight— And it's too late to stop us Jason, you know that."

"You Pyrrans are the worst liars in the universe," Jason said. "We both know that ship can lift ten times the amount it's carrying today. Now ... do you let me come, or forbid me without reason at all?"

"Get aboard," Kerk said. "But keep out of the way or you'll get trampled."

This time, with a definite destination ahead, the flight was much faster. Meta took the ship into the stratosphere, in a high ballistic arc that ended at the islands. Kerk was in the co-pilot's seat, Jason sat behind them where he could watch the screens. The landing party, twenty-five volunteers, were in the hold below with the weapons. All the screens in the ship were switched to the forward viewer. They watched the green island appear and swell, then vanish behind the flames of the braking rockets. Jockeying the ship carefully, Meta brought it down on a flat shelf near the cave mouth.

Jason was ready this time for the blast of mental hatred—but it still hurt. The gunners laughed and killed gleefully as every animal on the island closed in on the ship. They were slaughtered by the thousands, and still more came.

"Do you have to do this?" Jason asked. "It's murder—carnage, just

butchering those beasts like that."

"Self-defense," Kerk said. "They attack us and they get killed. What could be simpler? Now shut up, or I'll throw you out there with them."

It was a half an hour before the gunfire slackened. Animals still attacked them, but the mass assaults seemed to be over. Kerk spoke into the intercom.

"Landing party away—and watch your step. They know we're here and will make it as hot as they can. Take the bomb into that cave and see how far back it runs. We can always blast them from the air, but it'll do no good if they're dug into solid rock. Keep your screen open, leave the bomb and pull back at once if I tell you to. Now move."

The men swarmed down the ladders and formed into open battle formation. They were soon under attack, but the beasts were picked off before they could get close. It didn't take long for the man at point to reach the cave. He had his pickup trained in front of him, and the watchers in the ship followed the advance.

"Big cave," Kerk grunted. "Slants back and down. What I was afraid of. Bomb dropped on that would just close it up. With no guarantee that anything sealed in it, couldn't eventually get out. We'll have to see how far down it goes."

There was enough heat in the cave now to use the infra-red filters. The rock walls stood out harshly black and white as the advance continued.

"No signs of life since entering the cave," the officer reported. "Gnawed bones at the entrance and some bat droppings. It looks like a natural cave—so far."

Step by step the advance continued, slowing as it went. Insensitive as the Pyrrans were to psi pressure, even they were aware of the blast of hatred being continuously leveled at them. Jason, back in the ship, had a headache that slowly grew worse instead of better.

"*Watch out!*" Kerk shouted, staring at the screen with horror.

The cave was filled from wall to wall with pallid, eyeless animals. They poured from tiny side passages and seemed to literally emerge from the ground. Their front ranks dissolved in flame, but more kept pressing in. On the screen the watchers in the ship saw the cave spin dizzily as the operator fell. Pale bodies washed up and concealed the lens.

"Close ranks—flame-throwers and gas!" Kerk bellowed into the mike.

Less than half of the men were alive after that first attack. The survivors, protected by the flame-throwers, set off the gas grenades. Their sealed battle armor protected them while the section of cave filled with gas. Someone dug through the bodies of their attackers and found the pickup.

"Leave the bomb there and withdraw," Kerk ordered. "We've had enough losses already."

A different man stared out of the screen. The officer was dead. "Sorry, sir," he said, "but it will be just as easy to push ahead as back as long as the gas grenades hold out. We're too close now to pull back."

"That's an order," Kerk shouted, but the man was gone from the screen and the advance continued.

Jason's fingers hurt where he had them clamped to the chair arm. He pulled them loose and massaged them. On the screen the black and white cave flowed steadily towards them. Minute after minute went by this way. Each time the animals attacked again, a few more gas grenades were used up.

"Something ahead—looks different," the panting voice cracked from the speaker. The narrow cave slowly opened out into a gigantic chamber, so large the roof and far walls were lost in the distance.

"What are those?" Kerk asked. "Get a searchlight over to the right there."

The picture on the screen was fuzzy and hard to see now, dimmed by the layers of rock in-between. Details couldn't be made out clearly, but it was obvious this was something unusual.

"Never saw ... anything quite like them before," the speaker said. "Look like big plants of some kind, ten meters tall at least—yet they're moving. Those branches, tentacles or whatever they are, keep pointing towards us and I get the darkest feeling in my head ..."

"Blast one, see what happens," Kerk said.

The gun fired and at the same instant an intensified wave of mental hatred rolled over the men, dropping them to the ground. They rolled in pain, blacked out and unable to think or fight the underground beasts that poured over them in renewed attack.

In the ship, far above, Jason felt the shock to his mind and wondered how the men below could have lived through it. The others in the control room had

been hit by it as well. Kerk pounded on the frame of the screen and shouted to the unhearing men below.

"Pull back, come back ..."

It was too late. The men only stirred slightly as the victorious Pyrran animals washed over them, clawing for the joints in their armor. Only one man moved, standing up and beating the creatures away with his bare hands. He stumbled a few feet and bent over the writhing mass below him. With a heave of his shoulders he pulled another man up. The man was dead but his shoulder pack was still strapped to his back. Bloody fingers fumbled at the pack, then both men were washed back under the wave of death.

"That was the bomb!" Kerk shouted to Meta. "If he didn't change the setting, it's still on ten-second minimum. Get out of here!"

Jason had just time to fall back on the acceleration couch before the rockets blasted. The pressure leaned on him and kept mounting. Vision blacked out but he didn't lose consciousness. Air screamed across the hull, then the sound stopped as they left the atmosphere behind.

Just as Meta cut the power a glare of white light burst from the screens. They turned black instantly as the hull pickups burned out. She switched filters into place, then pressed the button that rotated new pickups into position.

Far below, in the boiling sea, a climbing cloud of mushroom-shaped flame filled the spot where the island had been seconds before. The three of them looked at it, silently and unmoving. Kerk recovered first.

"Head for home, Meta, and get operations on the screen. Twenty-five men dead, but they did their job. They knocked out those beasts—whatever they were—and ended the war. I can't think of a better way for a man to die."

Meta set the orbit, then called operations.

"Trouble getting through," she said. "I have a robot landing beam response, but no one is answering the call."

A man appeared on the empty screen. He was beaded with sweat and had a harried look in his eyes. "Kerk," he said, "is that you? Get the ship back here at once. We need her firepower at the perimeter. All blazes broke loose a minute ago, a general attack from every side, worse than I've ever seen."

"What do you mean?" Kerk stammered in unbelief. "The war is over—we

blasted them, destroyed their headquarters completely."

"The war is going like it never has gone before," the other snapped back. "I don't know what you did, but it stirred up the stewpot of hell here. Now stop talking and get the ship back!"

Kerk turned slowly to face Jason, his face pulled back in a look of raw animal savagery.

"You—! You did it! I should have killed you the first time I saw you. I wanted to, now I know I was right. You've been like a plague since you came here, sowing death in every direction. I knew you were wrong, yet I let your twisted words convince me. And look what has happened. First you killed Welf. Then you murdered those men in the cave. Now this attack on the perimeter—all who die there, you will have killed!"

Kerk advanced on Jason, step by slow step, hatred twisting his features. Jason backed away until he could retreat no further, his shoulders against the chart case. Kerk's hand lashed out, not a fighting blow, but an open slap. Though Jason rolled with it, it still battered him and stretched him full length on the floor. His arm was against the chart case, his fingers near the sealed tubes that held the jump matrices.

Jason seized one of the heavy tubes with both hands and pulled it out. He swung it with all his strength into Kerk's face. It broke the skin on his cheekbone and forehead and blood ran from the cuts. But it didn't slow or stop the big man in the slightest. His smile held no mercy as he reached down and dragged Jason to his feet.

"Fight back," he said, "I will have that much more pleasure as I kill you." He drew back the granite fist that would tear Jason's head from his shoulders.

"Go ahead," Jason said, and stopped struggling. "Kill me. You can do it easily. Only don't call it justice. Welf died to save me. But the men on the island died because of your stupidity. I wanted peace and you wanted war. Now you have it. Kill me to soothe your conscience, because the truth is something you can't face up to."

With a bellow of rage Kerk drove the pile-driver fist down.

Meta grabbed the arm in both her hands and hung on, pulling it aside before the blow could land. The three of them fell together, half crushing Jason.

"Don't do it," she screamed. "Jason didn't want those men to go down there.

That was your idea. You can't kill him for that!"

Kerk, exploding with rage, was past hearing. He turned his attention to Meta, tearing her from him. She was a woman and her supple strength was meager compared to his great muscles. But she was a Pyrran woman and she did what no off-worlder could. She slowed him for a moment, stopped the fury of his attack until he could rip her hands loose and throw her aside. It didn't take him long to do this, but it was just time enough for Jason to get to the door.

Jason stumbled through, and jammed shut the lock behind him. A split second after he had driven the bolt home Kerk's weight plunged into the door. The metal screamed and bent, giving way. One hinge was torn loose and the other held only by a shred of metal. It would go down on the next blow.

Jason wasn't waiting for that. He hadn't stayed to see if the door would stop the raging Pyrran. No door on the ship could stop him. Fast as possible, Jason went down the gangway. There was no safety on the ship, which meant he had to get off it. The lifeboat deck was just ahead.

Ever since first seeing them, he had given a lot of thought to the lifeboats. Though he hadn't looked ahead to this situation, he knew a time might come when he would need transportation of his own. The lifeboats had seemed to be the best bet, except that Meta had told him they had no fuel. She had been right in one thing—the boat he had been in had empty tanks, he had checked. There were five other boats, though, that he hadn't examined. He had wondered about the idea of useless lifeboats and come to what he hoped was a correct conclusion.

This spaceship was the only one the Pyrrans had. Meta had told him once that they always had planned to buy another ship, but never did. Some other necessary war expense managed to come up first. One ship was really enough for their uses. The only difficulty lay in the fact they had to keep that ship in operation or the Pyrran city was dead. Without supplies they would be wiped out in a few months. Therefore the ship's crew couldn't conceive of abandoning their ship. No matter what kind of trouble she got into, they couldn't leave her. When the ship died, so did their world.

With this kind of thinking, there was no need to keep the lifeboats fueled. Not all of them, at least. Though it stood to reason at least one of them held fuel

for short flights that would have been wasteful for the parent ship. At this point Jason's chain of logic grew weak. Too many "ifs." *If* they used the lifeboats at all, one of them should be fueled. *If* they did, it would be fueled now. And *if* it were fueled—which one of the six would it be? Jason had no time to go looking. He had to be right the first time.

His reasoning had supplied him with an answer, the last of a long line of suppositions. If a boat were fueled, it should be the one nearest to the control cabin. The one he was diving towards now. His life depended on this string of guesses.

Behind him the door went down with a crash. Kerk bellowed and leaped. Jason hurled himself through the lifeboat port with the nearest thing to a run he could manage under the doubled gravity. With both hands he grabbed the emergency launching handle and pulled down.

An alarm bell rang and the port slammed shut, literally in Kerk's face. Only his Pyrran reflexes saved him from being smashed by it.

Solid-fuel launchers exploded and blasted the lifeboat clear of the parent ship. Their brief acceleration slammed Jason to the deck, then he floated as the boat went into free fall. The main drive rockets didn't fire.



In that moment Jason learned what it was like to know he was dead. Without fuel the boat would drop into the jungle below, falling like a rock and blasting apart when it hit. There was no way out.

Then the rockets caught, roared, and he dropped to the deck, bruising his nose. He sat up, rubbing it and grinning. There was fuel in the tanks—the delay in starting had only been part of the launching cycle, giving the lifeboat time to fall clear of the ship. Now to get it under control. He pulled himself into the pilot's seat.

The altimeter had fed information to the autopilot, leveling the boat off

parallel to the ground. Like all lifeboat controls these were childishly simple, designed to be used by novices in an emergency. The autopilot could not be shut off, it rode along with the manual controls, tempering foolish piloting. Jason hauled the control wheel into a tight turn and the autopilot gentled it to a soft curve.

Through the port he could see the big ship blaring fire in a much tighter turn. Jason didn't know who was flying it or what they had in mind—he took no chances. Jamming the wheel forward into a dive he cursed as they eased into a gentle drop. The larger ship had no such restrictions. It changed course with a violent maneuver and dived on him. The forward turret fired and an explosion at the stern rocked the little boat. This either knocked out the autopilot or shocked it into submission. The slow drop turned into a power dive and the jungle billowed up.

Jason pulled the wheel back and there was just time to get his arms in front of his face before they hit.

Thundering rockets and cracking trees ended in a great splash. Silence followed and the smoke drifted away. High above, the spaceship circled hesitantly. Dropping a bit as if wanting to go down and investigate. Then rising again as the urgent message for aid came from the city. Loyalty won and she turned and spewed fire towards home.

XXIII.

Tree branches had broken the lifeboat's fall, the bow rockets had burned out in emergency blast, and the swamp had cushioned the landing a bit. It was still a crash. The battered cylinder sank slowly into the stagnant water and thin mud of the swamp. The bow was well under before Jason managed to kick open the emergency hatch in the waist.

There was no way of knowing how long it would take for the boat to go under, and Jason was in no condition to ponder the situation. Concussed and bloody, he had just enough drive left to get himself out. Wading and falling he made his way to firmer land, sitting down heavily as soon as he found something that would support him.

Behind him the lifeboat burbled and sank under the water. Bubbles of trapped air kept rising for a while, then stopped. The water stilled and, except for the broken branches and trees, there was no sign that a ship had ever come this way.

Insects whined across the swamp, and the only sound that broke the quiet of the woods beyond was the cruel scream of an animal pulling down its dinner. When that had echoed away in tiny waves of sound everything was silent.

Jason pulled himself out of the half trance with an effort. His body felt like it had been through a meat grinder, and it was almost impossible to think with the fog in his head. After minutes of deliberation he figured out that the medikit was what he needed. The easy-off snap was very difficult and the button release didn't work. He finally twisted his arm around until it was under the orifice and pressed the entire unit down. It buzzed industriously, though he couldn't feel the needles, he guessed it had worked. His sight spun dizzily for a while then cleared. Pain-killers went to work and he slowly came out of the dark cloud that had enveloped his brain since the crash.

Reason returned and loneliness rode along with it. He was without food, friendless, surrounded by the hostile forces of an alien planet. There was a rising panic that started deep inside of him, that took concentrated effort to hold down.

"Think, Jason, don't emote," he said it aloud to reassure himself, but was instantly sorry, because his voice sounded weak in the emptiness, with a ragged

edge of hysteria to it. Something caught in his throat and he coughed to clear it, spitting out blood. Looking at the red stain he was suddenly angry. Hating this deadly planet and the incredible stupidity of the people who lived on it. Cursing out loud was better and his voice didn't sound as weak now. He ended up shouting and shaking his fist at nothing in particular, but it helped. The anger washed away the fear and brought him back to reality.

Sitting on the ground felt good now. The sun was warm and when he leaned back he could almost forget the unending burden of doubled gravity. Anger had carried away fear, rest erased fatigue. From somewhere in the back of his mind there popped up the old platitude. *Where there's life, there's hope.* He grimaced at the triteness of the words, at the same time realizing that a basic truth lurked there.

Count his assets. Well battered, but still alive. None of the bruises seemed very important, and no bones were broken. His gun was still working, it dipped in and out of the power holster as he thought about it. Pyrrans made rugged equipment. The medikit was operating as well. If he kept his senses, managed to walk in a fairly straight line and could live off the land, there was a fair chance he might make it back to the city. What kind of a reception would be waiting for him there was a different matter altogether. He would find that out after he arrived. Getting there had first priority.

On the debit side there stood the planet Pyrrus. Strength-sapping gravity, murderous weather, and violent animals. Could he survive? As if to add emphasis to his thoughts, the sky darkened over and rain hissed into the forest, marching towards him. Jason scrambled to his feet and took a bearing before the rain closed down visibility. A jagged chain of mountains stood dimly on the horizon, he remembered crossing them on the flight out. They would do as a first goal. After he had reached them, he would worry about the next leg of the journey.

Leaves and dirt flew before the wind in quick gusts, then the rain washed over him. Soaked, chilled, already bone-tired, he pitted the tottering strength of his legs against the planet of death.

When nightfall came it was still raining. There was no way of being sure of the direction, and no point in going on. If that wasn't enough, Jason was on the

ragged edge of exhaustion. It was going to be a wet night. All the trees were thick-boled and slippery, he couldn't have climbed them on a one-G world. The sheltered spots that he investigated, under fallen trees and beneath thick bushes, were just as wet as the rest of the forest. In the end he curled up on the leeward side of a tree, and fell asleep, shivering, with the water dripping off him.

The rain stopped around midnight and the temperature fell sharply. Jason woke sluggishly from a dream in which he was being frozen to death, to find it was almost true. Fine snow was sifting through the trees, powdering the ground and drifting against him. The cold bit into his flesh, and when he sneezed it hurt his chest. His aching and numb body only wanted rest, but the spark of reason that remained in him, forced him to his feet. If he lay down now, he would die. Holding one hand against the tree so he wouldn't fall, he began to trudge around it. Step after shuffling step, around and around, until the terrible cold eased a bit and he could stop shivering. Fatigue crawled up him like a muffling, gray blanket. He kept on walking, half the time with his eyes closed. Opening them only when he fell and had to climb painfully to his feet again.

The sun burned away the snow clouds at dawn. Jason leaned against his tree and blinked up at the sky with sore eyes. The ground was white in all directions, except around the tree where his stumbling feet had churned a circle of black mud. His back against the smooth trunk, Jason sank slowly down to the ground, letting the sun soak into him.

Exhaustion had him light-headed, and his lips were cracked from thirst. Almost continuous coughing tore at his chest with fingers of fire. Though the sun was still low it was hot already, burning his skin dry. Dry and hot.

It wasn't right. This thought kept nagging at his brain until he admitted it. Turned it over and over and looked at it from all sides. What wasn't right? The way he felt.

Pneumonia. He had all the symptoms.

His dry lips cracked and blood moistened them when he smiled. He had avoided all the animal perils of Pyrrus, all the big carnivores and poisonous reptiles, only to be laid low by the smallest beast of them all. Well, he had the remedy for this one, too. Rolling up his sleeve with shaking fingers, he pressed the mouth of the medikit to his bare arm. It clicked and began to drone an angry

whine. That meant something, he knew, but he just couldn't remember what. Holding it up he saw that one of the hypodermics was projecting halfway from its socket. Of course. It was empty of whatever antibiotic the analyzer had called for. It needed refilling.

Jason hurled the thing away with a curse, and it splashed into a pool and was gone. End of medicine, end of medikit, end of Jason dinAlt. Single-handed battler against the perils of deathworld. Strong-hearted stranger who could do as well as the natives. It had taken him all of one day on his own to get his death warrant signed.

A choking growl echoed behind him. He turned, dropped and fired in the same motion. It was all over before his conscious mind was aware it had happened. Pyrran training had conditioned his reflexes on the pre-cortical level. Jason gaped at the ugly beast dying not a meter from him and realized he had been trained well.

His first reaction was unhappiness that he had killed one of the grubber dogs. When he looked closer he realized this animal was slightly different in markings, size and temper. Though most of its forequarters were blown away, blood pumping out in dying spurts, it kept trying to reach Jason. Before the eyes glazed with death it had struggled its way almost to his feet.

It wasn't quite a grubber dog, though chances were it was a wild relative. Bearing the same relation as dog to wolf. He wondered if there were any other resemblances between wolves and this dead beast. Did they hunt in packs, too?

As soon as the thought hit him he looked up—not a moment too soon. The great forms were drifting through the trees, closing in on him. When he shot two, the others snarled with rage and sank back into the forest. They didn't leave. Instead of being frightened by the deaths they grew even more enraged.

Jason sat with his back to the tree and waited until they came close before he picked them off. With each shot and dying scream the outraged survivors howled the louder. Some of them fought when they met, venting their rage. One stood on his hind legs and raked great strips of bark from a tree. Jason aimed a shot at it, but he was too far away to hit.

There were advantages to having a fever, he realized. Logically he knew he would live only to sunset, or until his gun was empty. Yet the fact didn't bother

him greatly. Nothing really mattered. He slumped, relaxed completely, only raising his arm to fire, then letting it drop again. Every few minutes he had to move to look in back of the tree, and kill any of them that were stalking him in the blind spot. He wished dimly that he were leaning against a smaller tree, but it wasn't worth the effort to go to one.

Sometime in the afternoon he fired his last shot. It killed an animal he had allowed to get close. He had noticed he was missing the longer shots. The beast snarled and dropped, the others that were close pulled back and howled in sympathy. One of them exposed himself and Jason pulled the trigger.

There was only a slight click. He tried again, in case it was just a misfire, but there was still only the click. The gun was empty, as was the spare clip pouch at his belt. There were vague memories of reloading, though he couldn't remember how many times he had done it.

This, then, was the end. They had all been right, Pyrrus was a match for him. Though they shouldn't talk. It would kill them all in the end, too. Pyrrans never died in bed. Old Pyrrans never died, they just got et.

Now that he didn't have to force himself to stay alert and hold the gun, the fever took hold. He wanted to sleep and he knew it would be a long sleep. His eyes were almost closed as he watched the wary carnivores slip closer to him. The first one crept close enough to spring, he could see the muscles tensing in its leg.

It leaped. Whirling in midair and falling before it reached him. Blood ran from its gaping mouth and the short shaft of metal projected from the side of his head.

The two men walked out of the brush and looked down at him. Their mere presence seemed to have been enough for the carnivores, because they all vanished.

Grubbers. He had been in such a hurry to reach the city that he had forgotten about the grubbers. It was good that they were here and Jason was very glad they had come. He couldn't talk very well, so he smiled to thank them. But this hurt his lips too much so he went to sleep.

XXIV.

For a strange length of time after that, there were only hazy patches of memory that impressed themselves on Jason. A sense of movement and large beasts around him. Walls, wood-smoke, the murmur of voices. None of it meant very much and he was too tired to care. It was easier and much better just to let go.

"About time," Rhes said. "A couple more days lying there like that and we would have buried you, even if you were still breathing."



Jason blinked at him, trying to focus the face that swam above him. He finally recognized Rhes, and wanted to answer him. But talking only brought on a spell of body-wracking coughing. Someone held a cup to his lips and sweet fluid trickled down his throat. He rested, then tried again.

"How long have I been here?" The voice was thin and sounded far away. Jason had trouble recognizing it for his own.

"Eight days. And why didn't you listen when I talked to you?" Rhes said.

"You should have stayed near the ship when you crashed. Didn't you remember what I said about coming down anywhere on this continent? No matter, too late to worry about that. Next time listen to what I say. Our people

moved fast and reached the site of the wreck before dark. They found the broken trees and the spot where the ship had sunk, and at first thought whoever had been in it had drowned. Then one of the dogs found your trail, but lost it again in the swamps during the night. They had a fine time with the mud and the snow and didn't have any luck at all in finding the spoor again. By the next afternoon they were ready to send for more help when they heard your firing. Just made it, from what I hear. Lucky one of them was a talker and could tell the wild dogs to clear out. Would have had to kill them all otherwise, and that's not healthy."

"Thanks for saving my neck," Jason said. "That was closer than I like to come. What happened after? I was sure I was done for, I remember that much. Diagnosed all the symptoms of pneumonia. Guaranteed fatal in my condition without treatment. Looks like you were wrong when you said most of your remedies were useless—they seemed to work well on me."

His voice died off as Rhes shook his head in a slow *no*, lines of worry sharp-cut into his face. Jason looked around and saw Naxa and another man. They had the same deeply unhappy expressions as Rhes.

"What is it?" Jason asked, feeling the trouble. "If your remedies didn't work —what did? Not my medikit. That was empty. I remember losing it or throwing it away."

"You were dying," Rhes said slowly. "We couldn't cure you. Only a junkman medicine machine could do that. We got one from the driver of the food truck."

"But how?" Jason asked, dazed. "You told me the city forbids you medicine. He couldn't give you his own medikit. Not unless he was—"

Rhes nodded and finished the sentence. "Dead. Of course he was dead. I killed him myself, with a great deal of pleasure."

This hit Jason hard. He sagged against the pillows and thought of all those who had died since he had come to Pyrrus. The men who had died to save him, died so he could live, died because of his ideas. It was a burden of guilt that he couldn't bear to think about. Would it stop with Krannon—or would the city people try to avenge his death?

"Don't you realize what that means!" he gasped out the words. "Krannon's death will turn the city against you. There'll be no more supplies. They'll attack

you when they can, kill your people—"

"Of course we know that!" Rhes leaned forward, his voice hoarse and intense. "It wasn't an easy decision to come to. We have always had a trading agreement with the junkmen. The trading trucks were inviolate. This was our last and only link to the galaxy outside and eventual hope of contacting them."

"Yet you broke that link to save me—why?"

"Only you can answer that question completely. There was a great attack on the city and we saw their walls broken, they had to be moved back at one place. At the same time the spaceship was over the ocean, dropping bombs of some kind—the flash was reported. Then the ship returned and *you* left it in a smaller ship. They fired at you but didn't kill you. The little ship wasn't destroyed either, we are starting to raise it now. What does it all mean? We had no way of telling. We only knew it was something vitally important. You were alive, but would obviously die before you could talk. The small ship might be repaired to fly, perhaps that was your plan and that is why you stole it for us. We *couldn't* let you die, not even if it meant all-out war with the city. The situation was explained to all of our people who could be reached by screen and they voted to save you. I killed the junkman for his medicine, then rode two doryms to death to get here in time.

"Now tell us—what does it mean? What is your plan? How will it help us?"

Guilt leaned on Jason and stifled his mouth. A fragment of an ancient legend cut across his mind, about the jonah who wrecked the spacer so all in it died, yet he lived. Was that he? Had he wrecked a world? Could he dare admit to these people that he had taken the lifeboat only to save his own life?

The three Pyrrans leaned forward, waiting for his words. Jason closed his eyes so he wouldn't see their faces. What could he tell them? If he admitted the truth they would undoubtedly kill him on the spot, considering it only justice. He wasn't fearful for his own life any more, but if he died the other deaths would all have been in vain. And there still was a way to end this planetary war. All the facts were available now, it was just a matter of putting them together. If only he wasn't so tired, he could see the solution. It was right there, lurking around a corner in his brain, waiting to be dragged out.

Whatever he did, he couldn't admit the truth now. If he died all hope died.

He had to lie to gain time, then find the true solution as soon as he was able. That was all he could do.

"You were right," Jason said haltingly. "The small ship has an interstellar drive in it. Perhaps it can still be saved. Even if it can't there is another way. I can't explain now, but I will tell you when I am rested. Don't worry. The fight is almost over."

They laughed and pounded each other on the back. When they came to shake his hand as well, he closed his eyes and made believe he was asleep. It is very hard to be a hypocrite if you aren't trained for it.

Rhes woke him early the next morning. "Do you feel well enough to travel?" he asked.

"Depends what you mean by travel," Jason told him. "If you mean under my own power, I doubt if I could get as far as that door."

"You'll be carried," Rhes broke in. "We have a litter swung between two doryms. Not too comfortable, but you'll get there. But only if you think you are well enough to move. We called all the people within riding distance and they are beginning to gather. By this afternoon we will have enough men and doryms to pull the ship out of the swamp."

"I'll come," Jason said, pushing himself to a sitting position. The effort exhausted him, bringing a wave of nausea. Only by leaning his full weight against the wall could he keep from falling back. He sat, propped there, until he heard shouts and the stamping of heavy feet outside, and they came to carry him out.

The trip drained away his small store of energy, and he fell into an exhausted sleep. When he opened his eyes the doryms were standing knee deep in the swamp and the salvage operation had begun. Ropes vanished out of sight in the water while lines of struggling animals and men hauled at them. The beasts bellowed, the men cursed as they slipped and fell. All of the Pyrrans tugging on the lines weren't male, women were there as well. Shorter on the average than the men, they were just as brawny. Their clothing was varied and many-colored, the first touch of decoration Jason had seen on this planet.

Getting the ship up was a heart-breaking job. The mud sucked at it and underwater roots caught on the vanes. Divers plunged time and again into the brown water to cut them free. Progress was incredibly slow, but the work never

stopped. Jason's brain was working even slower. The ship would be hauled up eventually—what would he do then? He had to have a new plan by that time, but thinking was impossible work. His thoughts corkscrewed and he had to fight down the rising feeling of panic.

The sun was low when the ship's nose finally appeared above the water. A ragged cheer broke out at first sight of that battered cone of metal and they went ahead with new energy.

Jason was the first one who noticed the dorym weaving towards them. The dogs saw it, of course, and ran out and sniffed. The rider shouted to the dogs and kicked angrily at the sides of his mount. Even at this distance Jason could see the beast's heaving sides and yellow foam-flecked hide. It was barely able to stagger now and the man jumped down, running ahead on foot. He was shouting something as he ran that couldn't be heard above the noise.

There was a single moment when the sounds slacked a bit and the running man's voice could be heard. He was calling the same word over and over again. It sounded like *wait*, but Jason couldn't be sure. Others had heard him though, and the result was instantaneous. They stopped, unmoving, where they were. Many of those holding the ropes let go of them. Only the quick action of the anchor men kept the ship from sliding back under, dragging the harnessed doryms with it. A wave of silence washed across the swamp in the wake of the running man's shouts. They could be heard clearly now.

"*Quake! Quake on the way! South—only safe way is south!*"

One by one the ropes dropped back into the water and the Pyrrans turned to wade to solid land. Before they were well started Rhes' voice cracked out.

"Stay at work! Get the ship up, it's our only hope now. I'll talk to Hananas, find out how much time we have."

These solitary people were unused to orders. They stopped and milled about, reason fighting with the urgent desire to run. One by one they stepped back to the ropes as they worked out the sense of Rhes' words. As soon as it was clear the work would continue he turned away.

"What is it? What's happening?" Jason called to him as he ran by.

"It's Hananas," Rhes said, stopping by the litter, waiting for the newcomer to reach him. "He's a quakeman. They know when quakes are coming, before they happen."

Hananas ran up, panting and tired. He was a short man, built like a barrel on stubby legs, a great white beard covering his neck and the top of his chest. Another time Jason might have laughed at his incongruous waddle, but not now. There was a charged difference in the air since the little man had arrived.

"Why didn't ... you have somebody near a plate? I called all over this area without an answer. Finally ... had to come myself—"

"How much time do we have?" Rhes cut in. "We have to get that ship up before we pull out."

"Time! Who knows about time!" the graybeard cursed. "Get out or you're dead."

"Calm down, Han," Rhes said in a quieter voice, taking the oldster's arms in both his hands. "You know what we're doing here—and how much depends on getting the ship up. Now how does it feel? This going to be a fast one or a slow one?"

"Fast. Faster than anything I felt in a long time. She's starting far away though, if you had a plate here I bet Mach or someone else up near the firelands would be reporting new eruptions. It's on the way and, if we don't get out soon, we're not getting out t'all."

There was a burble of water as the ship was hauled out a bit farther. No one talked now and there was a fierce urgency in their movements. Jason still wasn't sure exactly what had happened.

"Don't shoot me for a foreigner," he said, "but just what is wrong? Are you expecting earthquakes here, are you sure?"

"Sure!" Hananas screeched. "Of course I'm sure. If I wasn't sure I wouldn't be a quakeman. It's on the way."

"There's no doubt of that," Rhes added. "I don't know how you can tell on your planet when quakes or vulcanism are going to start, machines maybe. We have nothing like that. But quakemen, like Hananas here, always know about them before they happen. If the word can be passed fast enough, we get away. The quake is coming all right, the only thing in doubt is how much time we have."

The work went on and there was a good chance they would die long before it was finished. All for nothing. The only way Jason could get them to stop would

be to admit the ship was useless. He would be killed then and the grubber chances would die with him. He chewed his lip as the sun set and the work continued by torchlight.

Hananas paced around, grumbling under his breath, halting only to glance at the northern horizon. The people felt his restlessness and transmitted it to the animals. Dogfights broke out and the doryms pulled reluctantly at their harnesses. With each passing second their chances grew slimmer and Jason searched desperately for a way out of the trap of his own constructing.

"Look—" someone said, and they all turned. The sky to the north was lit with a red light. There was a rumble in the ground that was felt more than heard. The surface of the water blurred, then broke into patterns of tiny waves. Jason turned away from the light, looking at the water and the ship. It was higher now, the top of the stern exposed. There was a gaping hole here, blasted through the metal by the spaceship's guns.

"Rhes," he called, his words jammed together in the rush to get them out. "Look at the ship, at the hole blasted in her stern. I landed on the rockets and didn't know how badly she was hit. But the guns hit the star drive!"

Rhes gaped at him unbelievingly as he went on. Improvising, playing by ear, trying to manufacture lies that rang of the truth.

"I watched them install the drive—it's an auxiliary to the other engines. It was bolted to the hull right there. It's gone now, blown up. The boat will never leave this planet, much less go to another star."

He couldn't look Rhes in the eyes after that. He sank back into the furs that had been propped behind him, feeling the weakness even more. Rhes was silent and Jason couldn't tell if his story had been believed. Only when the Pyrran bent and slashed the nearest rope did he know he had won.

The word passed from man to man and the ropes were cut silently. Behind them the ship they had labored so hard over, sank back into the water. None of them watched. Each was locked in his own world of thought as they formed up to leave. As soon as the doryms were saddled and packed they started out, Hananas leading the way. Within minutes they were all moving, a single file that vanished into the darkness.

Jason's litter had to be left behind, it would have been smashed to pieces in the night march. Rhes pulled him up into the saddle before him, locking his

body into place with a steel-hard arm. The trek continued.

When they left the swamp they changed directions sharply. A little later Jason knew why, when the southern sky exploded. Flames lit the scene brightly, ashes sifted down and hot lumps of rock crashed into the trees. They steamed when they hit, and if it hadn't been for the earlier rain they would have been faced with a forest fire as well.

Something large loomed up next to the line of march, and when they crossed an open space Jason looked at it in the reflected light from the sky.

"Rhes—" he choked, pointing. Rhes looked at the great beast moving next to them, shaggy body and twisted horns as high as their shoulders, then looked away. He wasn't frightened or apparently interested. Jason looked around then and began to understand.

All of the fleeing animals made no sound, that's why he hadn't noticed them before. But on both sides dark forms ran between the trees. Some he recognized, most of them he didn't. For a few minutes a pack of wild dogs ran near them, even mingling with the domesticated dogs. No notice was taken. Flying things flapped overhead. Under the greater threat of the volcanoes all other battles were forgotten. Life respected life. A herd of fat, piglike beasts with curling tusks, blundered through the line. The doryms slowed, picking their steps carefully so they wouldn't step on them. Smaller animals sometimes clung to the backs of the bigger ones, riding untouched a while, before they leaped off.

Pounded mercilessly by the saddle, Jason fell wearily into a light sleep. It was shot through with dreams of the rushing animals, hurrying on forever in silence. With his eyes open or shut he saw the same endless stream of beasts.

It all meant something, and he frowned as he tried to think what. Animals running, Pyrran animals.

He sat bolt upright suddenly, wide awake, staring down in comprehension.

"What is it?" Rhes asked.

"Go on," Jason said. "Get us out of this, and get us out safely. I told you the lifeboat wasn't the only answer. I know how your people can get what they want —end the war now. There *is* a way, and I know how it can be done."

XXV.

There were few coherent memories of the ride. Some things stood out sharply like the spaceship-sized lump of burning scoria that had plunged into a lake near them, showering the line with hot drops of water. But mostly it was just a seemingly endless ride, with Jason still too weak to care much about it. By dawn the danger area was behind them and the march had slowed to a walk. The animals had vanished as the quake was left behind, going their own ways, still in silent armistice.

The peace of mutually shared danger was over, Jason found that out when they stopped to rest and eat. He and Rhes went to sit on the soft grass, near a fallen tree. A wild dog had arrived there first. It lay under the log, muscles tensed, the ruddy morning light striking a red glint from its eyes. Rhes faced it, not three meters away, without moving a muscle. He made no attempt to reach one of his weapons or to call for help. Jason stood still as well, hoping the Pyrran knew what he was doing.

With no warning at all the dog sprang straight at them. Jason fell backwards as Rhes pushed him aside. The Pyrran dropped at the same time—only now his hand held the long knife, yanked from the sheath strapped to his thigh. With unseen speed the knife came up, the dog twisted in midair, trying to bite it. Instead it sank in behind the dog's forelegs, the beast's own weight tearing a deadly gaping wound the length of its body. It was still alive when it hit the ground, but Rhes was astraddle it, pulling back the bony-plated head to cut the soft throat underneath.

The Pyrran carefully cleaned his knife on the dead animal's fur, then returned it to the sheath. "They're usually no trouble," he said quietly, "but it was excited. Probably lost the rest of the pack in the quake." His actions were the direct opposite of the city Pyrrans. He had not looked for trouble nor started the fight. Instead he had avoided it as long as he could. But when the beast charged it had been neatly and efficiently dispatched. Now, instead of gloating over his victory, he seemed troubled over an unnecessary death.

It made sense. Everything on Pyrrus made sense. Now he knew how the deadly planetary battle had started—and he knew how it could be ended. All the deaths had *not* been in vain. Each one had helped him along the road a little

more towards the final destination. There was just one final thing to be done.

Rhes was watching him now, and he knew they shared the same thoughts. "Explain yourself," Rhes said. "What did you mean when you said we could wipe out the junkmen and get our freedom?"

Jason didn't bother to correct the misquote, it was best they consider him a hundred per cent on their side.

"Get the others together and I'll tell you. I particularly want to see Naxa and any other talkers who are here."

They gathered quickly when the word was passed. All of them knew that the junkman had been killed to save this off-worlder, that their hope of salvation lay with him. Jason looked at the crowd of faces turned towards him and reached for the right words to tell them what had to be done. It didn't help to know that many of them would be killed doing it.

"The small star ship can't be used," he said. "You all saw that it was ruined beyond repair. But that was the easy way out. The hard way is still left. Though some of you may die, in the long run it will be the best solution.

"We are going to invade the city, break through the perimeter. I know how it can be done ..."



A mutter of sound spread across the crowd. Some of them looked excited, happy with the thought of killing their hereditary enemies. Others stared at Jason as if he were mad. A few were dazed at the magnitude of the thought, this carrying of the battle to the stronghold of the heavily armed enemy. They quieted when Jason raised his hand.

"I know it sounds impossible," he said. "But let me explain. Something must be done—and now is the time to do it. The situation can only get worse

from now on. The city Pyrr ... the junkmen can get along without your food, their concentrates taste awful but they sustain life. But they are going to turn against you in every way they can. No more metals for your tools or replacements for your electronic equipment. Their hatred will probably make them seek out your farms and destroy them from the ship. All of this won't be comfortable—and there will be worse to come. In the city they are losing their war against this planet. Each year there are less of them, and some day they will all be dead. Knowing how they feel I am sure they will destroy their ship first, and the entire planet as well, if that is possible."

"How can we stop them?" someone called out.

"By hitting *now*," Jason answered. "I know all the details of the city and I know how the defenses are set up. Their perimeter is designed to protect them from animal life, but we could break through it if we were really determined."

"What good would that do?" Rhes snapped. "We crack the perimeter and they draw back—then counter-attack in force. How can we stand against their weapons?"

"We won't have to. Their spaceport touches the perimeter, and I know the exact spot where the ship stands. That is the place where we will break through. There is no formal guard on the ship and only a few people in the area. We will capture the ship. Whether we can fly it or not is unimportant. Who controls the ship controls Pyrrus. Once there we threaten to destroy it if they don't meet our terms. They have the choice of mass suicide or co-operation. I hope they have the brains to co-operate."

His words shocked them into silence for an instant, then they surged into a wave of sound. There was no agreement, just excitement, and Rhes finally brought them to order.

"Quiet!" he shouted. "Wait until Jason finishes before you decide. We still haven't heard how this proposed invasion is to be accomplished."

"The plan I have depends on the talkers." Jason said. "Is Naxa there?" He waited until the fur-wrapped man had pushed to the front. "I want to know more about the talkers, Naxa. I know you can speak to doryms and the dogs here—but what about the wild animals? Can you make them do what you want?"

"They're animals ... course we can talk t'them. Th'more talkers, th'more power. Make 'em do just what we want."

"Then the attack will work," Jason said excitedly. "Could you get your talkers all on one side of the city—the opposite side from the spaceport—and stir the animals up? Make them attack the perimeter?"

"Could we!" Naxa shouted, carried away by the idea. "We'd bring in animals from all over, start th'biggest attack they ev'r saw!"

"Then that's it. Your talkers will launch the attack on the far side of the perimeter. If you keep out of sight, the guards will have no idea that it is anything more than an animal attack. I've seen how they work. As an attack mounts they call for reserves inside the city and drain men away from the other parts of the perimeter. At the height of the battle, when they have all their forces committed across the city, I'll lead the attack that will break through and capture the ship. That's the plan and it's going to work."

Jason sat down then, half fell down, drained of strength. He lay and listened as the debate went back and forth, Rhes ordering it and keeping it going. Difficulties were raised and eliminated. No one could find a basic fault with the plan. There were plenty of flaws in it, things that might go wrong, but Jason didn't mention them. These people wanted his idea to work and they were going to make it work.

It finally broke up and they moved away. Rhes came over to Jason.

"The basics are settled," he said. "All here are in agreement. They are spreading the word by messenger to all the talkers. The talkers are the heart of the attack, and the more we have, the better it will go off. We don't dare use the screens to call them, there is a good chance that the junkmen can intercept our messages. It will take five days before we are ready to go ahead."

"I'll need all of that time if I'm to be any good," Jason said. "Now let's get some rest."

XXVI.

"It's a strange feeling," Jason said. "I've never really seen the perimeter from this side before. Ugly is about the only word for it."

He lay on his stomach next to Rhes, looking through a screen of leaves, downhill towards the perimeter. They were both wrapped in heavy furs, in spite of the midday heat, with thick leggings and leather gauntlets to protect their hands. The gravity and the heat were already making Jason dizzy, but he forced himself to ignore this.

Ahead, on the far side of a burnt corridor, stood the perimeter. A high wall, of varying height and texture, seemingly made of everything in the world. It was impossible to tell what it had originally been constructed of. Generations of attackers had bruised, broken, and undermined it. Repairs had been quickly made, patches thrust roughly into place and fixed there. Crude masonry crumbled and gave way to a rat's nest of woven timbers. This overlapped a length of pitted metal, large plates riveted together. Even this metal had been eaten through and bursting sandbags spilled out of a jagged hole. Over the surface of the wall detector wires and charged cables looped and hung. At odd intervals automatic flame-throwers thrust their nozzles over the wall above and swept the base of the wall clear of any life that might have come close.

"Those flame things can cause us trouble," Rhes said. "That one covers the area where you want to break in."

"It'll be no problem," Jason assured him. "It may look like it is firing a random pattern, but it's really not. It varies a simple sweep just enough to fool an animal, but was never meant to keep men out. Look for yourself. It fires at regularly repeated two, four, three and one minute intervals."

They crawled back to the hollow where Naxa and the others waited for them. There were only thirty men in the party. What they had to do could only be done with a fast, light force. Their strongest weapon was surprise. Once that was gone their other weapons wouldn't hold out for seconds against the city guns. Everyone looked uncomfortable in the fur and leather wrappings, and some of the men had loosened them to cool off.

"Wrap up," Jason ordered. "None of you have been this close to the perimeter before and you don't understand how deadly it is here. Naxa is

keeping the larger animals away and you all can handle the smaller ones. That isn't the danger. Every thorn is poisoned, and even the blades of grass carry a deadly sting. Watch out for insects of any kind and once we start moving breathe only through the wet cloths."

"He's right," Naxa snorted. "N'ver been closer'n this m'self. Death, death up by that wall. Do like 'e says."

They could only wait then, honing down already needle-sharp crossbow bolts, and glancing up at the slowly moving sun. Only Naxa didn't share the unrest. He sat, eyes unfocused, feeling the movement of animal life in the jungle around them.

"On the way," he said. "Biggest thing I 'ver heard. Not a beast 'tween here and the mountains, ain't howlin' 'is lungs out, runnin' towards the city."

Jason was aware of part of it. A tension in the air and a wave of intensified anger and hatred. It would work, he knew, if they could only keep the attack confined to a small area. The talkers had seemed sure of it. They had stalked out quietly that morning, a thin line of ragged men, moving out in a mental sweep that would round up the Pyrran life and send it charging against the city.

"They hit!" Naxa said suddenly.

The men were on their feet now, staring in the direction of the city. Jason had felt the twist as the attack had been driven home, and knew that this was it. There was the sound of shots and a heavy booming far away. Thin streamers of smoke began to blow above the treetops.

"Let's get into position," Rhes said.

Around them the jungle howled with an echo of hatred. The half-sentient plants writhed and the air was thick with small flying things. Naxa sweated and mumbled as he turned back the animals that crashed towards them. By the time they reached the last screen of foliage before the burned-out area, they had lost four men. One had been stung by an insect, Jason got the medikit to him in time, but he was so sick he had to turn back. The other three were bitten or scratched and treatment came too late. Their swollen, twisted bodies were left behind on the trail.

"Dam' beasts hurt m'head," Naxa muttered. "When we go in?"

"Not yet," Rhes said. "We wait for the signal."

One of the men carried the radio. He sat it down carefully, then threw the aerial over a branch. The set was shielded so no radiation leaked out to give them away. It was turned on, but only a hiss of atmospheric static came from the speaker.

"We could have timed it—" Rhes said.

"No we couldn't," Jason told him. "Not accurately. We want to hit that wall at the height of the attack, when our chances are best. Even if they hear the message it won't mean a thing to them inside. And a few minutes later it won't matter."

The sound from the speaker changed. A voice spoke a short sentence, then cut off.

"*Bring me three barrels of flour.*"

"Let's go," Rhes urged as he started forward.

"Wait," Jason said, taking him by the arm. "I'm timing the flame-thrower. It's due in ... *there*!" A blast of fire sprayed the ground, then turned off. "We have four minutes to the next one—we hit the long period!"

They ran, stumbling in the soft ashes, tripping over charred bones and rusted metal. Two men grabbed Jason under the arm and half-carried him across the ground. It hadn't been planned that way, but it saved precious seconds. They dropped him against the wall and he fumbled out the bombs he had made. The charges from Krannon's gun, taken when he was killed, had been hooked together with a firing circuit. All the moves had been rehearsed carefully and they went smoothly now.

Jason had picked the metal wall as being the best spot to break in. It offered the most resistance to the native life, so the chances were it wouldn't be reinforced with sandbags or fill, the way other parts of the wall were. If he was wrong, they were all dead.

The first men had slapped their wads of sticky congealed sap against the wall. Jason pressed the charges into them and they stuck, a roughly rectangular pattern as high as a man. While he did this the detonating wire was run out to its length and the raiders pressed back against the base of the wall. Jason stumbled through the ashes to the detonator, fell on it and pressed the switch at the same time.

Behind him a thundering bang shook the wall and red flame burst out. Rhes was the first one there, pulling at the twisted and smoking metal with his gloved hands. Others grabbed on and bent the jagged pieces aside. The hole was filled with smoke and nothing was visible through it. Jason dived into the opening, rolled on a heap of rubble and smacked into something solid. When he blinked the smoke from his eyes he looked around him.

He was inside the city.

The others poured through now, picking him up as they charged in so he wouldn't be trampled underfoot. Someone spotted the spaceship and they ran that way.

A man ran around the corner of a building towards them. His Pyrran reflexes sent him springing into the safety of a doorway the same moment he saw the invaders. But they were Pyrrans, too. The man slumped slowly back onto the street, three metal bolts sticking out of his body. They ran on without stopping, running between the low storehouses. The ship stood ahead.

Someone had reached it ahead of them, they could see the outer hatch slowly grinding shut. A hail of bolts from the bows crashed into it with no effect.

"Keep going!" Jason shouted. "Get next to the hull before he reaches the guns."

This time three men didn't make it. The rest of them were under the belly of the ship when every gun let go at once. Most of them were aimed away from the ship, still the scream of shells and electric discharges was ear-shattering. The three men still in the open dissolved under the fire. Whoever was inside the ship had hit all the gun trips at once, both to knock out the attackers and summon aid. He would be on the screen now, calling for help. Their time was running out.

Jason reached up and tried to open the hatch, while the others watched. It was locked from the inside. One of the men brushed him aside and pulled at the inset handle. It broke off in his hand but the hatch remained closed.

The big guns had stopped now and they could hear again.

"Did anyone get the gun from that dead man?" he asked. "It would blow this thing open."

"No," Rhes said, "we didn't stop."

Before the words were out of his mouth two men were running back towards

the buildings, angling away from each other. The ship's guns roared again, a string of explosions cut across one man. Before they could change direction and find the other man he had reached the buildings.

He returned quickly, darting into the open to throw the gun to them. Before he could dive back to safety the shells caught him.

Jason grabbed up the gun as it skidded almost to his feet. They heard the sound of wide-open truck turbines screaming towards them as he blasted the lock. The mechanism sighed and the hatch sagged open. They were all through the air lock before the first truck appeared. Naxa stayed behind with the gun, to hold the lock until they could take the control room.

Everyone climbed faster than Jason, once he had pointed them the way, so the battle was over when he got there. The single city Pyrran looked like a pin-cushion. One of the techs had found the gun controls and was shooting wildly, the sheer quantity of his fire driving the trucks back.

"Someone get on the radio and tell the talkers to call the attack off," Jason said. He found the communications screen and snapped it on. Kerk's wide-eyed face stared at him from the screen.

"*You!*" Kerk said, breathing the word like a curse.

"Yes, it's me," Jason answered. He talked without looking up, while his hands were busy at the control board. "Listen to me, Kerk—and don't doubt anything I say. I may not know how to fly one of these ships, but I do know how to blow them up. Do you hear that sound?" He flipped over a switch and the faraway whine of a pump droned faintly. "That's the main fuel pump. If I let it run—which I won't right now—it could quickly fill the drive chamber with raw fuel. Pour in so much that it would run out of the stern tubes. Then what do you think would happen to your one and only spacer if I pressed the firing button? I'm not asking you what would happen to me, since you don't care—but you need this ship the way you need life itself."

There was only silence in the cabin now, the men who had won the ship turned to face him. Kerk's voice grated loudly through the room.

"What do you want, Jason—what are you trying to do? Why did you lead those animals in here ..." His voice cracked and broke as anger choked him and spilled over.

"Watch your tongue, Kerk," Jason said with soft menace. "These *men* you are talking about are the only ones on Pyrrus who have a spaceship. If you want them to share it with you, you had better learn to talk nicely. Now come over here at once—and bring Brucco and Meta." Jason looked at the older man's florid and swollen face and felt a measure of sympathy. "Don't look so unhappy, it's not the end of the world. In fact, it might be the beginning of one. And another thing, leave this channel open when you go. Have it hooked into every screen in the city so everyone can see what happens here. Make sure it's taped too, for replay."

Kerk started to say something, but changed his mind before he did. He left the screen, but the set stayed alive. Carrying the scene in the control room to the entire city.

XXVII.

The fight was over. It had ended so quickly the fact hadn't really sunk in yet. Rhes rubbed his hand against the gleaming metal of the control console, letting the reality of touch convince him. The other men milled about, looking out through the viewscreens or soaking in the mechanical strangeness of the room.

Jason was physically exhausted, but he couldn't let it show. He opened the pilot's medbox and dug through it until he found the stimulants. Three of the little gold pills washed the fatigue from his body, and he could think clearly again.

"Listen to me," he shouted. "The fight's not over yet. They'll try anything to take this ship back and we have to be ready. I want one of the techs to go over these boards until he finds the lock controls. Make sure all the air locks and ports are sealed. Send men to check them if necessary. Turn on all the screens to scan in every direction, so no one can get near the ship. We'll need a guard in the engine room, my control could be cut if they broke in there. And there had better be a room-by-room search of the ship, in case someone else is locked in with us."

The men had something to do now and felt relieved. Rhes split them up into groups and set them to work. Jason stayed at the controls, his hand next to the pump switch. The battle wasn't over yet.

"There's a truck coming," Rhes called, "going slow."

"Should I blast it?" the man at the gun controls asked.

"Hold your fire," Jason said, "until we can see who it is. If it's the people I sent for, let them through."

As the truck came on slowly, the gunner tracked it with his sights. There was a driver and three passengers. Jason waited until he was positive who they were.

"Those are the ones," he said. "Stop them at the lock, Rhes, make them come in one at a time. Take their guns as they enter, then strip them of *all* their equipment. There is no way of telling what could be a concealed weapon. Be specially careful of Brucco—he's the thin one with a face like an ax edge—make sure you strip him clean. He's a specialist in weapons and survival. And

bring the driver too, we don't want him reporting back about the broken air lock or the state of our guns."

Waiting was hard. His hand stayed next to the pump switch, even though he knew he could never use it. Just as long as the others thought he would.

There were stampings and muttered curses in the corridor; the prisoners were pushed in. Jason had one look at their deadly expressions and clenched fists before he called to Rhes.

"Keep them against the wall and watch them. Bowmen keep your weapons up." He looked at the people who had once been his friends and who now swam in hatred for him. Meta, Kerk, Brucco. The driver was Skop, the man Kerk had once appointed to guard him. He looked ready to explode now that the roles had been reversed.

"Pay close attention," Jason said, "because your lives depend upon it. Keep your backs to the wall and don't attempt to come any closer to me than you are now. If you do, you will be shot instantly. If we were alone, any one of you could undoubtedly reach me before I threw this switch. But we're not. You have Pyrran reflexes and muscles—but so do the bowmen. Don't gamble. Because it won't be a gamble. It will be suicide. I'm telling you this for your own protection. So we can talk peacefully without one of you losing his temper and suddenly getting shot. *There is no way out of this.* You are going to be forced to listen to everything I say. You can't escape or kill me. The war is over."

"And we lost—and all because of you ... you *traitor*!" Meta snarled.

"Wrong on both counts," Jason said blandly. "I'm not a traitor because I owe my allegiance to all men on this planet, both inside the perimeter and out. I never pretended differently. As to losing—why you haven't lost anything. In fact you've won. Won your war against this planet, if you will only hear me out." He turned to Rhes, who was frowning in angry puzzlement. "Of course your people have won also, Rhes. No more war with the city, you'll get medicine, off-planet contact—everything you want."

"Pardon me for being cynical," Rhes said, "but you're promising the best of all possible worlds for everyone. That will be a little hard to deliver when our interests are opposed so."

"You strike through to the heart of the matter," Jason said. "Thank you.

This mess will be settled by seeing that everyone's interests are not opposed. Peace between the city and farms, with an end to the useless war you have been fighting. Peace between mankind and the Pyrran life forms—because that particular war is at the bottom of all your troubles."

"The man's mad," Kerk said.

"Perhaps. You'll judge that after you hear me out. I'm going to tell you the history of this planet, because that is where both the trouble and the solution lie.

"When the settlers landed on Pyrrus three hundred years ago they missed the one important thing about this planet, the factor that makes it different from any other planet in the galaxy. They can't be blamed for the oversight, they had enough other things to worry about. The gravity was about the only thing familiar to them, the rest of the environment was a shocking change from the climate-controlled industrial world they had left. Storms, vulcanism, floods, earthquakes—it was enough to drive them insane, and I'm sure many of them did go mad. The animal and insect life was a constant annoyance, nothing at all like the few harmless and protected species they had known. I'm sure they never realized that the Pyrran life was telepathic as well—"

"That again!" Brucco snapped. "True or not, it is of no importance. I was tempted to agree with your theory of psionic-controlled attack on us, but the deadly fiasco you staged proved that theory wrong."

"I agree," Jason answered. "I was completely mistaken when I thought some outside agency directed the attack on the city with psionic control. It seemed a logical theory at the time and the evidence pointed that way. The expedition to the island *was* a deadly fiasco—only don't forget that attack was the direct opposite of what I wanted to have done. If I had gone into the cave myself none of the deaths would have been necessary. I think it would have been discovered that the plant creatures were nothing more than an advanced life form with unusual psi ability. They simply resonated strongly to the psionic attack on the city. I had the idea backwards thinking they instigated the battle. We'll never know the truth, though, because they are destroyed. But their deaths did prove one thing. It allows us to find the real culprits, the creatures who are leading, directing and inspiring the war against the city."

"*Who?*" Kerk breathed the question, rather than spoke it.

"Why *you* of course," Jason told him. "Not you alone, but all of your people in the city. Perhaps you don't like this war. However you are responsible for it, and keep it going."

Jason had to force back a smile as he looked at their dumfounded expressions. He had to prove his point quickly, before even his allies began to think him insane.

"Here is how it works. I said Pyrran life was telepathic—and I meant all life. Every single insect, plant and animal. At one time in this planet's violent history these psionic mutations proved to be survival types. They existed when other species died, and in the end I'm sure they co-operated in wiping out the last survivors of the non-psi strains. Co-operation is the key word here. Because while they still competed against each other under normal conditions, they worked together against anything that threatened them as a whole. When a natural upheaval or a tidal wave threatened them, they fled from it in harmony.



"You can see a milder form of this same behavior on any planet that is subject to forest fires. But here, mutual survival was carried to an extreme because of the violent conditions. Perhaps some of the life forms even developed precognition like the human quakemen. With this advance warning the larger beasts fled. The smaller ones developed seeds, or burrs or eggs, that could be carried to safety by the wind or in the animals' fur, thus insuring racial survival. I know this is true, because I watched it myself when we were escaping a quake."

"Admitted—all your points admitted," Brucco shouted. "But what does it have to do with *us*? So all the animals run away together, what does that have to do with the war?"

"They do more than run away together," Jason told him. "They work together against any natural disaster that threatens them all. Some day I'm sure, ecologists will go into raptures over the complex adjustments that occur here in the advent of blizzards, floods, fires and other disasters. There is only one

reaction we really care about now, though. That's the one directed towards the city people. Don't you realize yet—they treat you all as another natural disaster!

"We'll never know exactly how it came about, though there is a clue in that diary I found, dating from the first days on this planet. It said that a forest fire seemed to have driven new species towards the settlers. Those weren't new beasts at all—just old ones with new attitudes. Can't you just imagine how those protected, over-civilized settlers acted when faced with a forest fire? They panicked of course. If the settlers were in the path of the fire, the animals must have rushed right through their camp. Their reaction would undoubtedly have been to shoot the fleeing creatures down.

"When they did that they classified themselves as a natural disaster. Disasters take any form. Bipeds with guns could easily be included in the category. The Pyrran animals attacked, were shot, and the war began. The survivors kept attacking and informed all the life forms what the fight was about. The radioactivity of this planet must cause plenty of mutations—and the favorable, survival mutation was now one that was deadly to man. I'll hazard a guess that the psi function even instigates mutations, some of the deadlier types are just too one-sided to have come about naturally in a brief three hundred years.

"The settlers, of course, fought back, and kept their status as a natural disaster intact. Through the centuries they improved their killing methods, not that it did the slightest good, as you know. You city people, their descendants, are heirs to this heritage of hatred. You fight and are slowly being defeated. How can you possibly win against the biologic reserves of a planet that can recreate itself each time to meet any new attack?"

Silence followed Jason's words. Kerk and Meta stood white-faced as the impact of the disclosure sunk in. Brucco mumbled and checked points off on his fingers, searching for weak spots in the chain of reason. The fourth city Pyrran, Skop, ignored all these foolish words that he couldn't understand—or want to understand—and would have killed Jason in an instant if there had been the slightest chance of success.

It was Rhes who broke the silence. His quick mind had taken in the factors and sorted them out. "There's one thing wrong," he said. "What about us? We

live on the surface of Pyrrus without perimeters or guns. Why aren't we attacked as well? We're human, descended from the same people as the junkmen."

"You're not attacked," Jason told him, "because you don't identify yourself as a natural disaster. Animals can live on the slopes of a dormant volcano, fighting and dying in natural competition. But they'll flee together when the volcano erupts. That eruption is what makes the mountain a natural disaster. In the case of human beings, it is their thoughts that identify them as life form or disaster. Mountain or volcano. In the city everyone radiates suspicion and death. They enjoy killing, thinking about killing, and planning for killing. This is natural selection, too, you realize. These are the survival traits that work best in the city. Outside the city men think differently. If they are threatened individually, they fight, as will any other creature. Under more general survival threats they co-operate completely with the rules for universal survival that the city people break."

"How did it begin—this separation, I mean, between the two groups?" Rhes asked.

"We'll probably never know," Jason said. "I think your people must have originally been farmers, or psionic sensitives who were not with the others during some natural disaster. They would, of course, act correctly by Pyrran standards, and survive. This would cause a difference of opinion with the city people who saw killing as the answer. It's obvious, whatever the reason, that two separate communities were established early, and soon separated except for the limited amount of barter that benefited both."

"I still can't believe it," Kerk mumbled. "It makes a terrible kind of truth, every step of the way, but I still find it hard to accept. There *must* be another explanation."

Jason shook his head slowly. "None. This is the only one that works. We've eliminated the other ones, remember? I can't blame you for finding it hard to believe, since it is in direct opposition to everything you've understood to be true in the past. It's like altering a natural law. As if I gave you proof that gravity didn't really exist, that it was a force altogether different from the immutable one we know, one you could get around when you understood how. You'd want more proof than words. Probably want to see someone walking on air."

"Which isn't such a bad idea at that," he added, turning to Naxa. "Do you hear any animals around the ship now? Not the ones you're used to, but the mutated, violent kind that live only to attack the city."

"Place's crawling with 'em," Naxa said, "just lookin' for somethin' t'kill."

"Could you capture one?" Jason asked. "Without getting yourself killed, I mean."

Naxa snorted contempt as he turned to leave. "Beast's not born yet, that'll hurt me."

They stood quietly, each one wrapped tightly around by his own thoughts, while they waited for Naxa to return. Jason had nothing more to say. He would do one more thing to try and convince them of the facts, after that it would be up to each of them to reach a conclusion.

The talker returned quickly with a stingwing, tied by one leg to a length of leather. It flapped and shrieked as he carried it in.

"In the middle of the room, away from everybody," Jason told him. "Can you get that beast to sit on something and not flap around?"

"My hand good enough?" he asked, flipping the creature up so it clung to the back of his gauntlet. "That's how I caught it."

"Does anyone doubt that this is a real stingwing?" Jason asked. "I want to make sure you all believe there is no trickery here."

"The thing is real," Brucco said. "I can smell the poison in the wing-claws from here." He pointed to the dark marks on the leather where the liquid had dripped. "If that eats through the gloves, he's a dead man."

"Then we agree it's real," Jason said. "Real and deadly, and the only test of the theory will be if you people from the city can approach it like Naxa here."

They drew back automatically when he said it. Because they knew that stingwing was synonymous with death. Past, present and future. You don't change a natural law. Meta spoke for all of them.

"We ... can't. This man lives in the jungle, like an animal himself. Somehow he's learned to get near them. But you can't expect us to."

Jason spoke quickly, before the talker could react to the insult. "Of course I expect you to. That's the whole idea. If you don't hate the beast and expect it to attack you—why it won't. Think of it as a creature from a different planet,

something harmless."

"I can't," she said. "It's a *stingwing*!"

As they talked Brucco stepped forward, his eyes fixed steadily on the creature perched on the glove. Jason signaled the bowmen to hold their fire. Brucco stopped at a safe distance and kept looking steadily at the stingwing. It rustled its leathery wings uneasily and hissed. A drop of poison formed at the tip of each great poison claw on its wings. The control room was filled with a deadly silence.

Slowly he raised his hand. Carefully putting it out, over the animal. The hand dropped a little, rubbed the stingwing's head once, then fell back to his side. The animal did nothing except stir slightly under the touch.

There was a concerted sigh, as those who had been unknowingly holding their breath breathed again.

"How did you do it?" Meta asked in a hushed voice.

"Hm-m-m, what?" Brucco said, apparently snapping out of a daze. "Oh, touching the thing. Simple, really. I just pretended it was one of the training aids I use, a realistic and harmless duplicate. I kept my mind on that single thought and it worked." He looked down at his hand, then back to the stingwing. His voice quieter now, as if he spoke from a distance. "It's not a training aid you know. It's real. Deadly. The off-worlder is right. He's right about everything he said."

With Brucco's success as an example, Kerk came close to the animal. He walked stiffly, as if on the way to his execution, and runnels of sweat poured down his rigid face. But he believed and kept his thoughts directed away from the stingwing and he could touch it unharmed.

Meta tried but couldn't fight down the horror it raised when she came close. "I am trying," she said, "and I do believe you now—but I just can't do it."

Skop screamed when they all looked at him, shouted it was all a trick, and had to be clubbed unconscious when he attacked the bowmen.

Understanding had come to Pyrrus.

XXVIII.

"What do we do now?" Meta asked. Her voice was troubled, questioning. She voiced the thoughts of all the Pyrrans in the room, and the thousands who watched in their screens.

"What will we do?" They turned to Jason, waiting for an answer. For the moment their differences were forgotten. The people from the city were staring expectantly at him, as were the crossbowmen with half-lowered weapons. This stranger had confused and changed the old world they had known, and presented them with a newer and stranger one, with alien problems.

"Hold on," he said, raising his hand. "I'm no doctor of social ills. I'm not going to try and cure this planet full of muscle-bound sharpshooters. I've just squeezed through up to now, and by the law of averages I should be ten times dead."

"Even if all you say is true, Jason," Meta said, "you are still the only person who can help us. What will the future be like?"

Suddenly weary, Jason slumped into the pilot's chair. He glanced around at the circle of people. They seemed sincere. None of them even appeared to have noticed that he no longer had his hand on the pump switch. For the moment at least, the war between city and farm was forgotten.

"I'll give you my conclusions," Jason said, twisting in the chair, trying to find a comfortable position for his aching bones. "I've been doing a lot of thinking the last day or two, searching for the answer. The very first thing I realized, was that the perfect and logical solution wouldn't do at all. I'm afraid the old ideal of the lion lying down with the lamb doesn't work out in practice. About all it does is make a fast lunch for the lion. Ideally, now that you all know the real causes of your trouble, you should tear down the perimeter and have the city and forest people mingle in brotherly love. Makes just as pretty a picture as the one of lion and lamb. And would undoubtedly have the same result. Someone would remember how really filthy the grubbers are, or how stupid junkmen can be, and there would be a fresh corpse cooling. The fight would spread and the victors would be eaten by the wildlife that swarmed over the undefended perimeter. No, the answer isn't that easy."

As the Pyrrans listened to him they realized where they were, and glanced

around uneasily. The guards raised their crossbows again, and the prisoners stepped back to the wall and looked surly.

"See what I mean?" Jason asked. "Didn't take long did it?" They all looked a little sheepish at their unthinking reactions.

"If we're going to find a decent plan for the future, we'll have to take inertia into consideration. Mental inertia for one. Just because you know a thing is true in theory, doesn't make it true in fact. The barbaric religions of primitive worlds hold not a germ of scientific fact, though they claim to explain all. Yet if one of these savages has all the logical ground for his beliefs taken away—he doesn't stop believing. He then calls his mistaken beliefs 'faith' because he knows they are right. And he knows they are right because he has faith. This is an unbreakable circle of false logic that can't be touched. In reality, it is plain mental inertia. A case of thinking 'what always was' will also 'always be.' And not wanting to blast the thinking patterns out of the old rut.

"Mental inertia alone is not going to cause trouble—there is cultural inertia, too. Some of you in this room believe my conclusions and would like to change. But will all your people change? The unthinking ones, the habit-ridden, reflex-formed people who*know* what is now, will always be. They'll act like a drag on whatever plans you make, whatever attempts you undertake to progress with the new knowledge you have."

"Then it's useless—there's no hope for our world?" Rhes asked.

"I didn't say that," Jason answered. "I merely mean that your troubles won't end by throwing some kind of mental switch. I see three courses open for the future, and the chances are that all three will be going on at the same time.

"First—and best—will be the rejoining of city and farm Pyrrans into the single human group they came from. Each is incomplete now, and has something the other one needs. In the city here you have science and contact with the rest of the galaxy. You also have a deadly war. Out there in the jungle, your first cousins live at peace with the world, but lack medicine and the other benefits of scientific knowledge, as well as any kind of cultural contact with the rest of mankind. You'll both have to join together and benefit from the exchange. At the same time you'll have to forget the superstitious hatred you have of each other. This will only be done outside of the city, away from the war.

Every one of you who is capable should go out voluntarily, bringing some fraction of the knowledge that needs sharing. You won't be harmed if you go in good faith. And you will learn how to live *with* this planet, rather than against it. Eventually you'll have civilized communities that won't be either 'grubber' or 'junkman.' They'll be Pyrran."

"But what about our city here?" Kerk asked.

"It'll stay right here—and probably won't change in the slightest. In the beginning you'll need your perimeter and defenses to stay alive, while the people are leaving. And after that it will keep going because there are going to be any number of people here who you won't convince. They'll stay and fight and eventually die. Perhaps you will be able to do a better job in educating their children. What the eventual end of the city will be, I have no idea."

They were silent as they thought about the future. On the floor Skop groaned but did not move. "Those are two ways," Meta said. "What is the third?"

"The third possibility is my own pet scheme," Jason smiled. "And I hope I can find enough people to go along with me. I'm going to take my money and spend it all on outfitting the best and most modern spacer, with every weapon and piece of scientific equipment I can get my hands on. Then I'm going to ask for Pyrran volunteers to go with me."

"What in the world for?" Meta frowned.

"Not for charity, I expect to make my investment back, and more. You see, after these past few months, I can't possibly return to my old occupation. Not only do I have enough money now to make it a waste of time, but I think it would be an unending bore. One thing about Pyrrus—if you live—is that it spoils you for the quieter places. So I'd like to take this ship that I mentioned and go into the business of opening up new worlds. There are thousands of planets where men would like to settle, only getting a foothold on them is too rough or rugged for the usual settlers. Can you imagine a planet a Pyrran couldn't lick after the training you've had here? And enjoy doing it?

"There would be more than pleasure involved, though. In the city your lives have been geared for continual deadly warfare. Now you're faced with the choice of a fairly peaceful future, or staying in the city to fight an unnecessary and foolish war. I offer the third alternative of the occupation you know best,

that would let you accomplish something constructive at the same time.

"Those are the choices. Whatever you decide is up to each of you personally."

Before anyone could answer, livid pain circled Jason's throat. Skop had regained consciousness and surged up from the floor. He pulled Jason from the chair with a single motion, holding him by the neck, throttling him.

"Kerk! Meta!" Skop shouted hoarsely. "Grab guns! Open the locks—our people'll be here, kill the grubbers and their lies!"

Jason tore at the fingers that were choking the life out of him, but it was like pulling at bent steel bars. He couldn't talk and the blood hammered in his ears.

Meta hurtled forward like an uncoiled spring and the crossbows twanged. One bolt caught her in the leg, the other transfixed her upper arm. But she had been shot as she jumped and her inertia carried her across the room, to her fellow Pyrran and the dying off-worlder.

She raised her good arm and chopped down with the edge of her hand.

It caught Skop a hard blow on the biceps and his arm jumped spasmodically, his hand leaping from Jason's throat.

"What are you doing?" he shouted in strange terror to the wounded girl who fell against him. He pushed her away, still clutching Jason with his other hand. She didn't answer. Instead she chopped again, hard and true, the edge of her hand catching Skop across the windpipe, crushing it. He dropped Jason and fell to the floor, retching and gasping.

Jason watched the end through a haze, barely conscious.

Skop struggled to his feet, turned pain-filled eyes to his friends.

"You're wrong," Kerk said. "Don't do it."

The sound the wounded man made was more animal than human. When he dived towards the guns on the far side of the room the crossbows twanged like harps of death.

When Brucco went over to help Meta no one interfered. Jason gasped air back into his lungs, breathing in life. The watching glass eye of the viewer carried the scene to everyone in the city.

"Thanks, Meta ... for understanding ... as well as helping." Jason had to force the words out.

"Skop was wrong and you were right, Jason," she said. Her voice broke for a second as Brucco snapped off the feathered end of the steel bolt with his fingers, and pulled the shaft out of her arm. "I can't stay in the city, only people who feel as Skop did will be able to do that. And I'm afraid I can't go into the forest—you saw what luck I had with the stingwing. If it's all right I'd like to come with you. I'd like to very much."

It hurt when he talked so Jason could only smile, but she knew what he meant.

Kerk looked down in unhappiness at the body of the dead man. "He was wrong—but I know how he felt. I can't leave the city, not yet. Someone will have to keep things in hand while the changes are taking place. Your ship is a good idea, Jason, you'll have no shortage of volunteers. Though I doubt if you'll get Brucco to go with you."

"Of course not," Brucco snapped, not looking up from the compression bandage he was tying. "There's enough to do right here on Pyrrus. The animal life, quite a study to be made, probably have every ecologist in the galaxy visiting here."

Kerk walked slowly to the screen overlooking the city. No one attempted to stop him. He looked out at the buildings, the smoke still curling up from the perimeter, and the limitless sweep of green jungle beyond.

"You've changed it all, Jason," he said. "We can't see it now, but Pyrrus will never be the way it was before you came. For better or worse."

"Better," Jason croaked, and rubbed his aching throat. "Now get together and end this war so people will really believe it."

Rhes turned and after an instant's hesitation, extended his hand to Kerk. The gray-haired Pyrran felt the same repugnance himself about touching a grubber.

They shook hands then because they were both strong men.

THE END

THE BIG TRIP UP YONDER



By KURT VONNEGUT, JR.

If it was good enough for your grandfather, forget it … it is much too good for anyone else!

GRAMPS FORD, his chin resting on his hands, his hands on the crook of his cane, was staring irascibly at the five-foot television screen that dominated the room. On the screen, a news commentator was summarizing the day's happenings. Every thirty seconds or so, Gramps would jab the floor with his cane-tip and shout, "Hell, we did that a hundred years ago!"

Emerald and Lou, coming in from the balcony, where they had been seeking that 2185 A.D. rarity—privacy—were obliged to take seats in the back row, behind Lou's father and mother, brother and sister-in-law, son and daughter-in-law, grandson and wife, granddaughter and husband, great-grandson and wife, nephew and wife, grandnephew and wife, great-grandniece and husband, great-grandnephew and wife—and, of course, Gramps, who was in front of everybody. All save Gramps, who was somewhat withered and bent, seemed, by pre-anti-gerasone standards, to be about the same age—somewhere in their late twenties or early thirties. Gramps looked older because he had already reached 70 when anti-gerasone was invented. He had not aged in the 102 years since.

"Meanwhile," the commentator was saying, "Council Bluffs, Iowa, was still threatened by stark tragedy. But 200 weary rescue workers have refused to give up hope, and continue to dig in an effort to save Elbert Haggedorn, 183, who has been wedged for two days in a ..."

"I wish he'd get something more cheerful," Emerald whispered to Lou.

"SILENCE!" cried Gramps. "Next one shoots off his big bazoo while the TV's on is gonna find hisself cut off without a dollar—" his voice suddenly softened and sweetened—"when they wave that checkered flag at the Indianapolis Speedway, and old Gramps gets ready for the Big Trip Up Yonder."

He sniffed sentimentally, while his heirs concentrated desperately on not making the slightest sound. For them, the poignancy of the prospective Big Trip had been dulled somewhat, through having been mentioned by Gramps about once a day for fifty years.

"Dr. Brainard Keyes Bullard," continued the commentator, "President of

Wyandotte College, said in an address tonight that most of the world's ills can be traced to the fact that Man's knowledge of himself has not kept pace with his knowledge of the physical world."

"*Hell!*" snorted Gramps. "We said *that* a hundred years ago!"

"In Chicago tonight," the commentator went on, "a special celebration is taking place in the Chicago Lying-in Hospital. The guest of honor is Lowell W. Hitz, age zero. Hitz, born this morning, is the twenty-five-millionth child to be born in the hospital." The commentator faded, and was replaced on the screen by young Hitz, who squalled furiously.

"Hell!" whispered Lou to Emerald. "We said that a hundred years ago."

"I heard that!" shouted Gramps. He snapped off the television set and his petrified descendants stared silently at the screen. "You, there, boy—"

"I didn't mean anything by it, sir," said Lou, aged 103.

"Get me my will. You know where it is. You kids *all* know where it is. Fetch, boy!" Gramps snapped his gnarled fingers sharply.

Lou nodded dully and found himself going down the hall, picking his way over bedding to Gramps' room, the only private room in the Ford apartment. The other rooms were the bathroom, the living room and the wide windowless hallway, which was originally intended to serve as a dining area, and which had a kitchenette in one end. Six mattresses and four sleeping bags were dispersed in the hallway and living room, and the daybed, in the living room, accommodated the eleventh couple, the favorites of the moment.

On Gramps' bureau was his will, smeared, dog-eared, perforated and blotched with hundreds of additions, deletions, accusations, conditions, warnings, advice and homely philosophy. The document was, Lou reflected, a fifty-year diary, all jammed onto two sheets—a garbled, illegible log of day after day of strife. This day, Lou would be disinherited for the eleventh time, and it would take him perhaps six months of impeccable behavior to regain the promise of a share in the estate. To say nothing of the daybed in the living room for Em and himself.

"Boy!" called Gramps.

"Coming, sir." Lou hurried back into the living room and handed Gramps the will.

"Pen!" said Gramps.

HE was instantly offered eleven pens, one from each couple.

"Not *that* leaky thing," he said, brushing Lou's pen aside. "Ah, *there's* a nice one. Good boy, Willy." He accepted Willy's pen. That was the tip they had all been waiting for. Willy, then—Lou's father—was the new favorite.

Willy, who looked almost as young as Lou, though he was 142, did a poor job of concealing his pleasure. He glanced shyly at the daybed, which would become his, and from which Lou and Emerald would have to move back into the hall, back to the worst spot of all by the bathroom door.

Gramps missed none of the high drama he had authored and he gave his own familiar role everything he had. Frowning and running his finger along each line, as though he were seeing the will for the first time, he read aloud in a deep portentous monotone, like a bass note on a cathedral organ.



"I, Harold D. Ford, residing in Building 257 of Alden Village, New York City, Connecticut, do hereby make, publish and declare this to be my last Will

and Testament, revoking any and all former wills and codicils by me at any time heretofore made." He blew his nose importantly and went on, not missing a word, and repeating many for emphasis—repeating in particular his ever-more-elaborate specifications for a funeral.

At the end of these specifications, Gramps was so choked with emotion that Lou thought he might have forgotten why he'd brought out the will in the first place. But Gramps heroically brought his powerful emotions under control and, after erasing for a full minute, began to write and speak at the same time. Lou could have spoken his lines for him, he had heard them so often.

"I have had many heartbreaks ere leaving this vale of tears for a better land," Gramps said and wrote. "But the deepest hurt of all has been dealt me by —" He looked around the group, trying to remember who the malefactor was.

Everyone looked helpfully at Lou, who held up his hand resignedly.

Gramps nodded, remembering, and completed the sentence—"my great-grandson, Louis J. Ford."

"Grandson, sir," said Lou.

"Don't quibble. You're in deep enough now, young man," said Gramps, but he made the change. And, from there, he went without a misstep through the phrasing of the disinheritance, causes for which were disrespectfulness and quibbling.

IN the paragraph following, the paragraph that had belonged to everyone in the room at one time or another, Lou's name was scratched out and Willy's substituted as heir to the apartment and, the biggest plum of all, the double bed in the private bedroom.

"So!" said Gramps, beaming. He erased the date at the foot of the will and substituted a new one, including the time of day. "Well—time to watch the McGarvey Family." The McGarvey Family was a television serial that Gramps had been following since he was 60, or for a total of 112 years. "I can't wait to see what's going to happen next," he said.

Lou detached himself from the group and lay down on his bed of pain by the bathroom door. Wishing Em would join him, he wondered where she was.

He dozed for a few moments, until he was disturbed by someone stepping over him to get into the bathroom. A moment later, he heard a faint gurgling

sound, as though something were being poured down the washbasin drain. Suddenly, it entered his mind that Em had cracked up, that she was in there doing something drastic about Gramps.

"Em?" he whispered through the panel. There was no reply, and Lou pressed against the door. The worn lock, whose bolt barely engaged its socket, held for a second, then let the door swing inward.

"Morty!" gasped Lou.

Lou's great-grandnephew, Mortimer, who had just married and brought his wife home to the Ford menage, looked at Lou with consternation and surprise. Morty kicked the door shut, but not before Lou had glimpsed what was in his hand—Gramps' enormous economy-size bottle of anti-gerasone, which had apparently been half-emptied, and which Morty was refilling with tap water.

A moment later, Morty came out, glared defiantly at Lou and brushed past him wordlessly to rejoin his pretty bride.

Shocked, Lou didn't know what to do. He couldn't let Gramps take the mousetrapped anti-gerasone—but, if he warned Gramps about it, Gramps would certainly make life in the apartment, which was merely insufferable now, harrowing.

Lou glanced into the living room and saw that the Fords, Emerald among them, were momentarily at rest, relishing the botches that the McGarveys had made of *their* lives. Stealthily, he went into the bathroom, locked the door as well as he could and began to pour the contents of Gramps' bottle down the drain. He was going to refill it with full-strength anti-gerasone from the 22 smaller bottles on the shelf.

The bottle contained a half-gallon, and its neck was small, so it seemed to Lou that the emptying would take forever. And the almost imperceptible smell of anti-gerasone, like Worcestershire sauce, now seemed to Lou, in his nervousness, to be pouring out into the rest of the apartment, through the keyhole and under the door.

THE bottle gurgled monotonously. Suddenly, up came the sound of music from the living room and there were murmurs and the scraping of chair-legs on the floor. "Thus ends," said the television announcer, "the 29,121st chapter in the life of your neighbors and mine, the McGarveys." Footsteps were coming

down the hall. There was a knock on the bathroom door.

"Just a sec," Lou cheerily called out. Desperately, he shook the big bottle, trying to speed up the flow. His palms slipped on the wet glass, and the heavy bottle smashed on the tile floor.

The door was pushed open, and Gramps, dumbfounded, stared at the incriminating mess.

Lou felt a hideous prickling sensation on his scalp and the back of his neck. He grinned engagingly through his nausea and, for want of anything remotely resembling a thought, waited for Gramps to speak.

"Well, boy," said Gramps at last, "looks like you've got a little tidying up to do."

And that was all he said. He turned around, elbowed his way through the crowd and locked himself in his bedroom.

The Fords contemplated Lou in incredulous silence a moment longer, and then hurried back to the living room, as though some of his horrible guilt would taint them, too, if they looked too long. Morty stayed behind long enough to give Lou a quizzical, annoyed glance. Then he also went into the living room, leaving only Emerald standing in the doorway.

Tears streamed over her cheeks. "Oh, you poor lamb—*please* don't look so awful! It was my fault. I put you up to this with my nagging about Gramps."

"No," said Lou, finding his voice, "really you didn't. Honest, Em, I was just —"

"You don't have to explain anything to me, hon. I'm on your side, no matter what." She kissed him on one cheek and whispered in his ear, "It wouldn't have been murder, hon. It wouldn't have killed him. It wasn't such a terrible thing to do. It just would have fixed him up so he'd be able to go any time God decided He wanted him."

"What's going to happen next, Em?" said Lou hollowly. "What's he going to do?"

LOU and Emerald stayed fearfully awake almost all night, waiting to see what Gramps was going to do. But not a sound came from the sacred bedroom. Two hours before dawn, they finally dropped off to sleep.

At six o'clock, they arose again, for it was time for their generation to eat

breakfast in the kitchenette. No one spoke to them. They had twenty minutes in which to eat, but their reflexes were so dulled by the bad night that they had hardly swallowed two mouthfuls of egg-type processed seaweed before it was time to surrender their places to their son's generation.

Then, as was the custom for whoever had been most recently disinherited, they began preparing Gramps' breakfast, which would presently be served to him in bed, on a tray. They tried to be cheerful about it. The toughest part of the job was having to handle the honest-to-God eggs and bacon and oleomargarine, on which Gramps spent so much of the income from his fortune.

"Well," said Emerald, "I'm not going to get all panicky until I'm sure there's something to be panicky about."

"Maybe he doesn't know what it was I busted," Lou said hopefully.

"Probably thinks it was your watch crystal," offered Eddie, their son, who was toying apathetically with his buckwheat-type processed sawdust cakes.

"Don't get sarcastic with your father," said Em, "and don't talk with your mouth full, either."

"I'd like to see anybody take a mouthful of this stuff and *not* say something," complained Eddie, who was 73. He glanced at the clock. "It's time to take Gramps his breakfast, you know."

"Yeah, it is, isn't it?" said Lou weakly. He shrugged. "Let's have the tray, Em."

"We'll both go."

Walking slowly, smiling bravely, they found a large semi-circle of long-faced Fords standing around the bedroom door.

Em knocked. "Gramps," she called brightly, "*break*-fast is *rea*-dy."

There was no reply and she knocked again, harder.

The door swung open before her fist. In the middle of the room, the soft, deep, wide, canopied bed, the symbol of the sweet by-and-by to every Ford, was empty.

A sense of death, as unfamiliar to the Fords as Zoroastrianism or the causes of the Sepoy Mutiny, stilled every voice, slowed every heart. Awed, the heirs began to search gingerly, under the furniture and behind the drapes, for all that was mortal of Gramps, father of the clan.

BUT Gramps had left not his Earthly husk but a note, which Lou finally found on the dresser, under a paperweight which was a treasured souvenir from the World's Fair of 2000. Unsteadily, Lou read it aloud:

"'Somebody who I have sheltered and protected and taught the best I know how all these years last night turned on me like a mad dog and diluted my anti-gerasone, or tried to. I am no longer a young man. I can no longer bear the crushing burden of life as I once could. So, after last night's bitter experience, I say good-by. The cares of this world will soon drop away like a cloak of thorns and I shall know peace. By the time you find this, I will be gone.'"

"Gosh," said Willy brokenly, "he didn't even get to see how the 5000-mile Speedway Race was going to come out."

"Or the Solar Series," Eddie said, with large mournful eyes.

"Or whether Mrs. McGarvey got her eyesight back," added Morty.

"There's more," said Lou, and he began reading aloud again: "'I, Harold D. Ford, etc., do hereby make, publish and declare this to be my last Will and Testament, revoking any and all former wills and codicils by me at any time heretofore made.'"

"No!" cried Willy. "Not another one!"

"'I do stipulate,'" read Lou, "'that all of my property, of whatsoever kind and nature, not be divided, but do devise and bequeath it to be held in common by my issue, without regard for generation, equally, share and share alike.'"

"Issue?" said Emerald.

Lou included the multitude in a sweep of his hand. "It means we all own the whole damn shootin' match."

Each eye turned instantly to the bed.

"Share and share alike?" asked Morty.

"Actually," said Willy, who was the oldest one present, "it's just like the old system, where the oldest people head up things with their headquarters in here and—"

"I like *that*!" exclaimed Em. "Lou owns as much of it as you do, and I say it ought to be for the oldest one who's still working. You can snooze around here all day, waiting for your pension check, while poor Lou stumbles in here after work, all tuckered out, and—"

"How about letting somebody who's never had *any* privacy get a little crack

at it?" Eddie demanded hotly. "Hell, you old people had plenty of privacy back when you were kids. I was born and raised in the middle of that goddamn barracks in the hall! How about—"

"Yeah?" challenged Morty. "Sure, you've all had it pretty tough, and my heart bleeds for you. But try honeymooning in the hall for a real kick."

"*Silence!*" shouted Willy imperiously. "The next person who opens his mouth spends the next sixth months by the bathroom. Now clear out of my room. I want to think."

A vase shattered against the wall, inches above his head.

IN the next moment, a free-for-all was under way, with each couple battling to eject every other couple from the room. Fighting coalitions formed and dissolved with the lightning changes of the tactical situation. Em and Lou were thrown into the hall, where they organized others in the same situation, and stormed back into the room.

After two hours of struggle, with nothing like a decision in sight, the cops broke in, followed by television cameramen from mobile units.

For the next half-hour, patrol wagons and ambulances hauled away Fords, and then the apartment was still and spacious.

An hour later, films of the last stages of the riot were being televised to 500,000,000 delighted viewers on the Eastern Seaboard.

In the stillness of the three-room Ford apartment on the 76th floor of Building 257, the television set had been left on. Once more the air was filled with the cries and grunts and crashes of the fray, coming harmlessly now from the loudspeaker.

The battle also appeared on the screen of the television set in the police station, where the Fords and their captors watched with professional interest.

Em and Lou, in adjacent four-by-eight cells, were stretched out peacefully on their cots.

"Em," called Lou through the partition, "you got a washbasin all your own, too?"

"Sure. Washbasin, bed, light—the works. And we thought *Gramps'* room was something. How long has this been going on?" She held out her hand. "For the first time in forty years, hon, I haven't got the shakes—look at me!"

"Cross your fingers," said Lou. "The lawyer's going to try to get us a year."

"Gee!" Em said dreamily. "I wonder what kind of wires you'd have to pull to get put away in solitary?"

"All right, pipe down," said the turnkey, "or I'll toss the whole kit and caboodle of you right out. And first one who lets on to anybody outside how good jail is ain't never getting back in!"

The prisoners instantly fell silent.

THE living room of the apartment darkened for a moment as the riot scenes faded on the television screen, and then the face of the announcer appeared, like the Sun coming from behind a cloud. "And now, friends," he said, "I have a special message from the makers of anti-gerasone, a message for all you folks over 150. Are you hampered socially by wrinkles, by stiffness of joints and discoloration or loss of hair, all because these things came upon you before anti-gerasone was developed? Well, if you are, you need no longer suffer, need no longer feel different and out of things.

"After years of research, medical science has now developed *Super*-anti-gerasone! In weeks—yes, weeks—you can look, feel and act as young as your great-great-grandchildren! Wouldn't you pay $5,000 to be indistinguishable from everybody else? Well, you don't have to. Safe, tested *Super*-anti-gerasone costs you only a few dollars a day.

"Write now for your free trial carton. Just put your name and address on a dollar postcard, and mail it to '*Super*,' Box 500,000, Schenectady, N. Y. Have you got that? I'll repeat it. '*Super*,' Box 500,000 ..."

Underlining the announcer's words was the scratching of Gramps' pen, the one Willy had given him the night before. He had come in, a few minutes earlier, from the Idle Hour Tavern, which commanded a view of Building 257 from across the square of asphalt known as the Alden Village Green. He had called a cleaning woman to come straighten the place up, then had hired the best lawyer in town to get his descendants a conviction, a genius who had never gotten a client less than a year and a day. Gramps had then moved the daybed before the television screen, so that he could watch from a reclining position. It was something he'd dreamed of doing for years.

"Schen-*ec*-ta-dy," murmured Gramps. "Got it!" His face had changed

remarkably. His facial muscles seemed to have relaxed, revealing kindness and equanimity under what had been taut lines of bad temper. It was almost as though his trial package of*Super*-anti-gerasone had already arrived. When something amused him on television, he smiled easily, rather than barely managing to lengthen the thin line of his mouth a millimeter.

Life was good. He could hardly wait to see what was going to happen next.

THE TUNNEL UNDER THE WORLD



By FREDERIK POHL

Pinching yourself is no way to see if you are dreaming. Surgical instruments? Well, yes—but a mechanic's kit is best of all!

I

On the morning of June 15th, Guy Burckhardt woke up screaming out of a dream.

It was more real than any dream he had ever had in his life. He could still hear and feel the sharp, ripping-metal explosion, the violent heave that had tossed him furiously out of bed, the searing wave of heat.

He sat up convulsively and stared, not believing what he saw, at the quiet room and the bright sunlight coming in the window.

He croaked, "Mary?"

His wife was not in the bed next to him. The covers were tumbled and awry, as though she had just left it, and the memory of the dream was so strong that instinctively he found himself searching the floor to see if the dream explosion had thrown her down.



But she wasn't there. Of course she wasn't, he told himself, looking at the familiar vanity and slipper chair, the uncracked window, the unbuckled wall. It had only been a dream.

"Guy?" His wife was calling him querulously from the foot of the stairs. "Guy, dear, are you all right?"

He called weakly, "Sure."

There was a pause. Then Mary said doubtfully, "Breakfast is ready. Are you sure you're all right? I thought I heard you yelling—"

Burckhardt said more confidently, "I had a bad dream, honey. Be right down."

In the shower, punching the lukewarm-and-cologne he favored, he told himself that it had been a beaut of a dream. Still, bad dreams weren't unusual, especially bad dreams about explosions. In the past thirty years of H-bomb jitters, who had not dreamed of explosions?

Even Mary had dreamed of them, it turned out, for he started to tell her about the dream, but she cut him off. "You *did*?" Her voice was astonished. "Why, dear, I dreamed the same thing! Well, almost the same thing. I didn't actually *hear* anything. I dreamed that something woke me up, and then there was a sort of quick bang, and then something hit me on the head. And that was all. Was yours like that?"

Burckhardt coughed. "Well, no," he said. Mary was not one of these strong-as-a-man, brave-as-a-tiger women. It was not necessary, he thought, to tell her all the little details of the dream that made it seem so real. No need to mention the splintered ribs, and the salt bubble in his throat, and the agonized knowledge that this was death. He said, "Maybe there really was some kind of explosion downtown. Maybe we heard it and it started us dreaming."

Mary reached over and patted his hand absently. "Maybe," she agreed. "It's almost half-past eight, dear. Shouldn't you hurry? You don't want to be late to the office."

He gulped his food, kissed her and rushed out—not so much to be on time as to see if his guess had been right.

But downtown Tylerton looked as it always had. Coming in on the bus, Burckhardt watched critically out the window, seeking evidence of an explosion. There wasn't any. If anything, Tylerton looked better than it ever had before: It was a beautiful crisp day, the sky was cloudless, the buildings were clean and inviting. They had, he observed, steam-blasted the Power & Light Building, the town's only skyscraper—that was the penalty of having Contro Chemical's main plant on the outskirts of town; the fumes from the cascade stills left their mark on stone buildings.

None of the usual crowd were on the bus, so there wasn't anyone Burckhardt could ask about the explosion. And by the time he got out at the corner of Fifth and Lehigh and the bus rolled away with a muted diesel moan, he had pretty well convinced himself that it was all imagination.

He stopped at the cigar stand in the lobby of his office building, but Ralph

wasn't behind the counter. The man who sold him his pack of cigarettes was a stranger.

"Where's Mr. Stebbins?" Burckhardt asked.

The man said politely, "Sick, sir. He'll be in tomorrow. A pack of Marlins today?"

"Chesterfields," Burckhardt corrected.

"Certainly, sir," the man said. But what he took from the rack and slid across the counter was an unfamiliar green-and-yellow pack.

"Do try these, sir," he suggested. "They contain an anti-cough factor. Ever notice how ordinary cigarettes make you choke every once in a while?"

Burckhardt said suspiciously, "I never heard of this brand."

"Of course not. They're something new." Burckhardt hesitated, and the man said persuasively, "Look, try them out at my risk. If you don't like them, bring back the empty pack and I'll refund your money. Fair enough?"

Burckhardt shrugged. "How can I lose? But give me a pack of Chesterfields, too, will you?"

He opened the pack and lit one while he waited for the elevator. They weren't bad, he decided, though he was suspicious of cigarettes that had the tobacco chemically treated in any way. But he didn't think much of Ralph's stand-in; it would raise hell with the trade at the cigar stand if the man tried to give every customer the same high-pressure sales talk.

The elevator door opened with a low-pitched sound of music. Burckhardt and two or three others got in and he nodded to them as the door closed. The thread of music switched off and the speaker in the ceiling of the cab began its usual commercials.

No, not the *usual* commercials, Burckhardt realized. He had been exposed to the captive-audience commercials so long that they hardly registered on the outer ear any more, but what was coming from the recorded program in the basement of the building caught his attention. It wasn't merely that the brands were mostly unfamiliar; it was a difference in pattern.

There were jingles with an insistent, bouncy rhythm, about soft drinks he had never tasted. There was a rapid patter dialogue between what sounded like two ten-year-old boys about a candy bar, followed by an authoritative bass

rumble: "Go right out and get a DELICIOUS Choco-Bite and eat your TANGY Choco-Bite *all up*. That's *Choco-Bite*!" There was a sobbing female whine: "I *wish* I had a Feckle Freezer! I'd do *anything* for a Feckle Freezer!" Burckhardt reached his floor and left the elevator in the middle of the last one. It left him a little uneasy. The commercials were not for familiar brands; there was no feeling of use and custom to them.

But the office was happily normal—except that Mr. Barth wasn't in. Miss Mitkin, yawning at the reception desk, didn't know exactly why. "His home phoned, that's all. He'll be in tomorrow."

"Maybe he went to the plant. It's right near his house."

She looked indifferent. "Yeah."

A thought struck Burckhardt. "But today is June 15th! It's quarterly tax return day—he has to sign the return!"

Miss Mitkin shrugged to indicate that that was Burckhardt's problem, not hers. She returned to her nails.

Thoroughly exasperated, Burckhardt went to his desk. It wasn't that he couldn't sign the tax returns as well as Barth, he thought resentfully. It simply wasn't his job, that was all; it was a responsibility that Barth, as office manager for Contro Chemicals' downtown office, should have taken.

He thought briefly of calling Barth at his home or trying to reach him at the factory, but he gave up the idea quickly enough. He didn't really care much for the people at the factory and the less contact he had with them, the better. He had been to the factory once, with Barth; it had been a confusing and, in a way, a frightening experience. Barring a handful of executives and engineers, there wasn't a soul in the factory—that is, Burckhardt corrected himself, remembering what Barth had told him, not a *living* soul—just the machines.

According to Barth, each machine was controlled by a sort of computer which reproduced, in its electronic snarl, the actual memory and mind of a human being. It was an unpleasant thought. Barth, laughing, had assured him that there was no Frankenstein business of robbing graveyards and implanting brains in machines. It was only a matter, he said, of transferring a man's habit patterns from brain cells to vacuum-tube cells. It didn't hurt the man and it didn't make the machine into a monster.

But they made Burckhardt uncomfortable all the same.

He put Barth and the factory and all his other little irritations out of his mind and tackled the tax returns. It took him until noon to verify the figures—which Barth could have done out of his memory and his private ledger in ten minutes, Burckhardt resentfully reminded himself.

He sealed them in an envelope and walked out to Miss Mitkin. "Since Mr. Barth isn't here, we'd better go to lunch in shifts," he said. "You can go first."

"Thanks." Miss Mitkin languidly took her bag out of the desk drawer and began to apply makeup.

Burckhardt offered her the envelope. "Drop this in the mail for me, will you? Uh—wait a minute. I wonder if I ought to phone Mr. Barth to make sure. Did his wife say whether he was able to take phone calls?"

"Didn't say." Miss Mitkin blotted her lips carefully with a Kleenex. "Wasn't his wife, anyway. It was his daughter who called and left the message."

"The kid?" Burckhardt frowned. "I thought she was away at school."

"She called, that's all I know."

Burckhardt went back to his own office and stared distastefully at the unopened mail on his desk. He didn't like nightmares; they spoiled his whole day. He should have stayed in bed, like Barth.

A funny thing happened on his way home. There was a disturbance at the corner where he usually caught his bus—someone was screaming something about a new kind of deep-freeze—so he walked an extra block. He saw the bus coming and started to trot. But behind him, someone was calling his name. He looked over his shoulder; a small harried-looking man was hurrying toward him.

Burckhardt hesitated, and then recognized him. It was a casual acquaintance named Swanson. Burckhardt sourly observed that he had already missed the bus.

He said, "Hello."

Swanson's face was desperately eager. "Burckhardt?" he asked inquiringly, with an odd intensity. And then he just stood there silently, watching Burckhardt's face, with a burning eagerness that dwindled to a faint hope and died to a regret. He was searching for something, waiting for something, Burckhardt thought. But whatever it was he wanted, Burckhardt didn't know

how to supply it.

Burckhardt coughed and said again, "Hello, Swanson."

Swanson didn't even acknowledge the greeting. He merely sighed a very deep sigh.

"Nothing doing," he mumbled, apparently to himself. He nodded abstractedly to Burckhardt and turned away.

Burckhardt watched the slumped shoulders disappear in the crowd. It was an *odd* sort of day, he thought, and one he didn't much like. Things weren't going right.

Riding home on the next bus, he brooded about it. It wasn't anything terrible or disastrous; it was something out of his experience entirely. You live your life, like any man, and you form a network of impressions and reactions. You *expect* things. When you open your medicine chest, your razor is expected to be on the second shelf; when you lock your front door, you expect to have to give it a slight extra tug to make it latch.

It isn't the things that are right and perfect in your life that make it familiar. It is the things that are just a little bit wrong—the sticking latch, the light switch at the head of the stairs that needs an extra push because the spring is old and weak, the rug that unfailingly skids underfoot.

It wasn't just that things were wrong with the pattern of Burckhardt's life; it was that the *wrong* things were wrong. For instance, Barth hadn't come into the office, yet Barth *always* came in.

Burckhardt brooded about it through dinner. He brooded about it, despite his wife's attempt to interest him in a game of bridge with the neighbors, all through the evening. The neighbors were people he liked—Anne and Farley Dennerman. He had known them all their lives. But they were odd and brooding, too, this night and he barely listened to Dennerman's complaints about not being able to get good phone service or his wife's comments on the disgusting variety of television commercials they had these days.

Burckhardt was well on the way to setting an all-time record for continuous abstraction when, around midnight, with a suddenness that surprised him—he was strangely *aware* of it happening—he turned over in his bed and, quickly and completely, fell asleep.

II

On the morning of June 15th, Burckhardt woke up screaming.



It was more real than any dream he had ever had in his life. He could still hear the explosion, feel the blast that crushed him against a wall. It did not seem right that he should be sitting bolt upright in bed in an undisturbed room.

His wife came pattering up the stairs. "Darling!" she cried. "What's the matter?"

He mumbled, "Nothing. Bad dream."

She relaxed, hand on heart. In an angry tone, she started to say: "You gave me such a shock—"

But a noise from outside interrupted her. There was a wail of sirens and a

clang of bells; it was loud and shocking.

The Burckhardts stared at each other for a heartbeat, then hurried fearfully to the window.

There were no rumbling fire engines in the street, only a small panel truck, cruising slowly along. Flaring loudspeaker horns crowned its top. From them issued the screaming sound of sirens, growing in intensity, mixed with the rumble of heavy-duty engines and the sound of bells. It was a perfect record of fire engines arriving at a four-alarm blaze.

Burckhardt said in amazement, "Mary, that's against the law! Do you know what they're doing? They're playing records of a fire. What are they up to?"

"Maybe it's a practical joke," his wife offered.

"Joke? Waking up the whole neighborhood at six o'clock in the morning?" He shook his head. "The police will be here in ten minutes," he predicted. "Wait and see."

But the police weren't—not in ten minutes, or at all. Whoever the pranksters in the car were, they apparently had a police permit for their games.

The car took a position in the middle of the block and stood silent for a few minutes. Then there was a crackle from the speaker, and a giant voice chanted:

"Feckle Freezers!Feckle Freezers!Gotta have aFeckle Freezer!Feckle, Feckle, Feckle,Feckle, Feckle, Feckle—"

It went on and on. Every house on the block had faces staring out of windows by then. The voice was not merely loud; it was nearly deafening.

Burckhardt shouted to his wife, over the uproar, "What the hell is a Feckle Freezer?"

"Some kind of a freezer, I guess, dear," she shrieked back unhelpfully.

Abruptly the noise stopped and the truck stood silent. It was still misty morning; the Sun's rays came horizontally across the rooftops. It was impossible to believe that, a moment ago, the silent block had been bellowing the name of a freezer.

"A crazy advertising trick," Burckhardt said bitterly. He yawned and turned away from the window. "Might as well get dressed. I guess that's the end of—"

The bellow caught him from behind; it was almost like a hard slap on the ears. A harsh, sneering voice, louder than the arch-angel's trumpet, howled:

"Have you got a freezer? *It stinks!* If it isn't a Feckle Freezer, *it stinks*! If it's a last year's Feckle Freezer, *it stinks*! Only this year's Feckle Freezer is any good at all! You know who owns an Ajax Freezer? Fairies own Ajax Freezers! You know who owns a Triplecold Freezer? Commies own Triplecold Freezers! Every freezer but a brand-new Feckle Freezer *stinks*!"

The voice screamed inarticulately with rage. "I'm warning you! Get out and buy a Feckle Freezer right away! Hurry up! Hurry for Feckle! Hurry for Feckle! Hurry, hurry, hurry, Feckle, Feckle, Feckle, Feckle, Feckle, Feckle...."

It stopped eventually. Burckhardt licked his lips. He started to say to his wife, "Maybe we ought to call the police about—" when the speakers erupted again. It caught him off guard; it was intended to catch him off guard. It screamed:

"Feckle, Feckle, Feckle, Feckle, Feckle, Feckle, Feckle, Feckle. Cheap freezers ruin your food. You'll get sick and throw up. You'll get sick and die. Buy a Feckle, Feckle, Feckle, Feckle! Ever take a piece of meat out of the freezer you've got and see how rotten and moldy it is? Buy a Feckle, Feckle, Feckle, Feckle, Feckle. Do you want to eat rotten, stinking food? Or do you want to wise up and buy a Feckle, Feckle, Feckle—"

That did it. With fingers that kept stabbing the wrong holes, Burckhardt finally managed to dial the local police station. He got a busy signal—it was apparent that he was not the only one with the same idea—and while he was shakingly dialing again, the noise outside stopped.

He looked out the window. The truck was gone.

Burckhardt loosened his tie and ordered another Frosty-Flip from the waiter. If only they wouldn't keep the Crystal Cafe so *hot*! The new paint job—searing reds and blinding yellows—was bad enough, but someone seemed to have the delusion that this was January instead of June; the place was a good ten degrees warmer than outside.

He swallowed the Frosty-Flip in two gulps. It had a kind of peculiar flavor, he thought, but not bad. It certainly cooled you off, just as the waiter had promised. He reminded himself to pick up a carton of them on the way home; Mary might like them. She was always interested in something new.

He stood up awkwardly as the girl came across the restaurant toward him.

She was the most beautiful thing he had ever seen in Tylerton. Chin-height, honey-blonde hair and a figure that—well, it was all hers. There was no doubt in the world that the dress that clung to her was the only thing she wore. He felt as if he were blushing as she greeted him.

"Mr. Burckhardt." The voice was like distant tomtoms. "It's wonderful of you to let me see you, after this morning."

He cleared his throat. "Not at all. Won't you sit down, Miss—"

"April Horn," she murmured, sitting down—beside him, not where he had pointed on the other side of the table. "Call me April, won't you?"

She was wearing some kind of perfume, Burckhardt noted with what little of his mind was functioning at all. It didn't seem fair that she should be using perfume as well as everything else. He came to with a start and realized that the waiter was leaving with an order for *filets mignon* for two.

"Hey!" he objected.

"Please, Mr. Burckhardt." Her shoulder was against his, her face was turned to him, her breath was warm, her expression was tender and solicitous. "This is all on the Feckle Corporation. Please let them—it's the *least* they can do."

He felt her hand burrowing into his pocket.

"I put the price of the meal into your pocket," she whispered conspiratorially. "Please do that for me, won't you? I mean I'd appreciate it if you'd pay the waiter—I'm old-fashioned about things like that."

She smiled meltingly, then became mock-businesslike. "But you must take the money," she insisted. "Why, you're letting Feckle off lightly if you do! You could sue them for every nickel they've got, disturbing your sleep like that."

With a dizzy feeling, as though he had just seen someone make a rabbit disappear into a top hat, he said, "Why, it really wasn't so bad, uh, April. A little noisy, maybe, but—"

"Oh, Mr. Burckhardt!" The blue eyes were wide and admiring. "I knew you'd understand. It's just that—well, it's such a *wonderful* freezer that some of the outside men get carried away, so to speak. As soon as the main office found out about what happened, they sent representatives around to every house on the block to apologize. Your wife told us where we could phone you—and I'm so

very pleased that you were willing to let me have lunch with you, so that I could apologize, too. Because truly, Mr. Burckhardt, it is a *fine* freezer.

"I shouldn't tell you this, but—" the blue eyes were shyly lowered—"I'd do almost anything for Feckle Freezers. It's more than a job to me." She looked up. She was enchanting. "I bet you think I'm silly, don't you?"

Burckhardt coughed. "Well, I—"

"Oh, you don't want to be unkind!" She shook her head. "No, don't pretend. You think it's silly. But really, Mr. Burckhardt, you wouldn't think so if you knew more about the Feckle. Let me show you this little booklet—"

Burckhardt got back from lunch a full hour late. It wasn't only the girl who delayed him. There had been a curious interview with a little man named Swanson, whom he barely knew, who had stopped him with desperate urgency on the street—and then left him cold.

But it didn't matter much. Mr. Barth, for the first time since Burckhardt had worked there, was out for the day—leaving Burckhardt stuck with the quarterly tax returns.

What did matter, though, was that somehow he had signed a purchase order for a twelve-cubic-foot Feckle Freezer, upright model, self-defrosting, list price $625, with a ten per cent "courtesy" discount—"Because of that *horrid* affair this morning, Mr. Burckhardt," she had said.

And he wasn't sure how he could explain it to his wife.

We needn't have worried. As he walked in the front door, his wife said almost immediately, "I wonder if we can't afford a new freezer, dear. There was a man here to apologize about that noise and—well, we got to talking and—"

She had signed a purchase order, too.

It had been the damnedest day, Burckhardt thought later, on his way up to bed. But the day wasn't done with him yet. At the head of the stairs, the weakened spring in the electric light switch refused to click at all. He snapped it back and forth angrily and, of course, succeeded in jarring the tumbler out of its pins. The wires shorted and every light in the house went out.

"Damn!" said Guy Burckhardt.

"Fuse?" His wife shrugged sleepily. "Let it go till the morning, dear."

Burckhardt shook his head. "You go back to bed. I'll be right along."

It wasn't so much that he cared about fixing the fuse, but he was too restless for sleep. He disconnected the bad switch with a screwdriver, stumbled down into the black kitchen, found the flashlight and climbed gingerly down the cellar stairs. He located a spare fuse, pushed an empty trunk over to the fuse box to stand on and twisted out the old fuse.

When the new one was in, he heard the starting click and steady drone of the refrigerator in the kitchen overhead.

He headed back to the steps, and stopped.

Where the old trunk had been, the cellar floor gleamed oddly bright. He inspected it in the flashlight beam. It was metal!

"Son of a gun," said Guy Burckhardt. He shook his head unbelievingly. He peered closer, rubbed the edges of the metallic patch with his thumb and acquired an annoying cut—the edges were *sharp*.

The stained cement floor of the cellar was a thin shell. He found a hammer and cracked it off in a dozen spots—everywhere was metal.

The whole cellar was a copper box. Even the cement-brick walls were false fronts over a metal sheath!

Baffled, he attacked one of the foundation beams. That, at least, was real wood. The glass in the cellar windows was real glass.

He sucked his bleeding thumb and tried the base of the cellar stairs. Real wood. He chipped at the bricks under the oil burner. Real bricks. The retaining walls, the floor—they were faked.

It was as though someone had shored up the house with a frame of metal and then laboriously concealed the evidence.

The biggest surprise was the upside-down boat hull that blocked the rear half of the cellar, relic of a brief home workshop period that Burckhardt had gone through a couple of years before. From above, it looked perfectly normal. Inside, though, where there should have been thwarts and seats and lockers, there was a mere tangle of braces, rough and unfinished.

"But I *built* that!" Burckhardt exclaimed, forgetting his thumb. He leaned against the hull dizzily, trying to think this thing through. For reasons beyond his comprehension, someone had taken his boat and his cellar away, maybe his whole house, and replaced them with a clever mock-up of the real thing.

"That's crazy," he said to the empty cellar. He stared around in the light of the flash. He whispered, "What in the name of Heaven would anybody do that for?"

Reason refused an answer; there wasn't any reasonable answer. For long minutes, Burckhardt contemplated the uncertain picture of his own sanity.

He peered under the boat again, hoping to reassure himself that it was a mistake, just his imagination. But the sloppy, unfinished bracing was unchanged. He crawled under for a better look, feeling the rough wood incredulously. Utterly impossible!

He switched off the flashlight and started to wriggle out. But he didn't make it. In the moment between the command to his legs to move and the crawling out, he felt a sudden draining weariness flooding through him.

Consciousness went—not easily, but as though it were being taken away, and Guy Burckhardt was asleep.

III

On the morning of June 16th, Guy Burckhardt woke up in a cramped position huddled under the hull of the boat in his basement—and raced upstairs to find it was June 15th.

The first thing he had done was to make a frantic, hasty inspection of the boat hull, the faked cellar floor, the imitation stone. They were all as he had remembered them—all completely unbelievable.

The kitchen was its placid, unexciting self. The electric clock was purring soberly around the dial. Almost six o'clock, it said. His wife would be waking at any moment.

Burckhardt flung open the front door and stared out into the quiet street. The morning paper was tossed carelessly against the steps—and as he retrieved it, he noticed that this was the 15th day of June.

But that was impossible. *Yesterday* was the 15th of June. It was not a date one would forget—it was quarterly tax-return day.

He went back into the hall and picked up the telephone; he dialed for Weather Information, and got a well-modulated chant: "—and cooler, some showers. Barometric pressure thirty point zero four, rising ... United States Weather Bureau forecast for June 15th. Warm and sunny, with high around—"

He hung the phone up. June 15th.

"Holy heaven!" Burckhardt said prayerfully. Things were very odd indeed. He heard the ring of his wife's alarm and bounded up the stairs.

Mary Burckhardt was sitting upright in bed with the terrified, uncomprehending stare of someone just waking out of a nightmare.

"Oh!" she gasped, as her husband came in the room. "Darling, I just had the most *terrible* dream! It was like an explosion and—"

"Again?" Burckhardt asked, not very sympathetically. "Mary, something's funny! I *knew* there was something wrong all day yesterday and—"

He went on to tell her about the copper box that was the cellar, and the odd mock-up someone had made of his boat. Mary looked astonished, then alarmed, then placatory and uneasy.

She said, "Dear, are you *sure*? Because I was cleaning that old trunk out just last week and I didn't notice anything."

"Positive!" said Guy Burckhardt. "I dragged it over to the wall to step on it to put a new fuse in after we blew the lights out and—"

"After we what?" Mary was looking more than merely alarmed.

"After we blew the lights out. You know, when the switch at the head of the stairs stuck. I went down to the cellar and—"

Mary sat up in bed. "Guy, the switch didn't stick. I turned out the lights myself last night."

Burckhardt glared at his wife. "Now I *know* you didn't! Come here and take a look!"

He stalked out to the landing and dramatically pointed to the bad switch, the one that he had unscrewed and left hanging the night before....

Only it wasn't. It was as it had always been. Unbelieving, Burckhardt pressed it and the lights sprang up in both halls.

Mary, looking pale and worried, left him to go down to the kitchen and start breakfast. Burckhardt stood staring at the switch for a long time. His mental processes were gone beyond the point of disbelief and shock; they simply were not functioning.

He shaved and dressed and ate his breakfast in a state of numb introspection. Mary didn't disturb him; she was apprehensive and soothing. She kissed him good-by as he hurried out to the bus without another word.

Miss Mitkin, at the reception desk, greeted him with a yawn. "Morning," she said drowsily. "Mr. Barth won't be in today."

Burckhardt started to say something, but checked himself. She would not know that Barth hadn't been in yesterday, either, because she was tearing a June 14th pad off her calendar to make way for the "new" June 15th sheet.

He staggered to his own desk and stared unseeingly at the morning's mail. It had not even been opened yet, but he knew that the Factory Distributors envelope contained an order for twenty thousand feet of the new acoustic tile, and the one from Finebeck & Sons was a complaint.

After a long while, he forced himself to open them. They were.

By lunchtime, driven by a desperate sense of urgency, Burckhardt made Miss Mitkin take her lunch hour first—the June-fifteenth-that-was-yesterday, *he* had gone first. She went, looking vaguely worried about his strained

insistence, but it made no difference to Burckhardt's mood.

The phone rang and Burckhardt picked it up abstractedly. "Contro Chemicals Downtown, Burckhardt speaking."

The voice said, "This is Swanson," and stopped.

Burckhardt waited expectantly, but that was all. He said, "Hello?"

Again the pause. Then Swanson asked in sad resignation, "Still nothing, eh?"

"Nothing what? Swanson, is there something you want? You came up to me yesterday and went through this routine. You—"

The voice crackled: "Burckhardt! Oh, my good heavens, *you remember*! Stay right there—I'll be down in half an hour!"

"What's this all about?"

"Never mind," the little man said exultantly. "Tell you about it when I see you. Don't say any more over the phone—somebody may be listening. Just wait there. Say, hold on a minute. Will you be alone in the office?"

"Well, no. Miss Mitkin will probably—"

"Hell. Look, Burckhardt, where do you eat lunch? Is it good and noisy?"

"Why, I suppose so. The Crystal Cafe. It's just about a block—"

"I know where it is. Meet you in half an hour!" And the receiver clicked.

The Crystal Cafe was no longer painted red, but the temperature was still up. And they had added piped-in music interspersed with commercials. The advertisements were for Frosty-Flip, Marlin Cigarettes—"They're sanitized," the announcer purred—and something called Choco-Bite candy bars that Burckhardt couldn't remember ever having heard of before. But he heard more about them quickly enough.

While he was waiting for Swanson to show up, a girl in the cellophane skirt of a nightclub cigarette vendor came through the restaurant with a tray of tiny scarlet-wrapped candies.

"Choco-Bites are *tangy*," she was murmuring as she came close to his table. "Choco-Bites are *tangier* than tangy!"

Burckhardt, intent on watching for the strange little man who had phoned him, paid little attention. But as she scattered a handful of the confections over the table next to his, smiling at the occupants, he caught a glimpse of her and

turned to stare.

"Why, Miss Horn!" he said.

The girl dropped her tray of candies.

Burckhardt rose, concerned over the girl. "Is something wrong?"

But she fled.

The manager of the restaurant was staring suspiciously at Burckhardt, who sank back in his seat and tried to look inconspicuous. He hadn't insulted the girl! Maybe she was just a very strictly reared young lady, he thought—in spite of the long bare legs under the cellophane skirt—and when he addressed her, she thought he was a masher.

Ridiculous idea. Burckhardt scowled uneasily and picked up his menu.

"Burckhardt!" It was a shrill whisper.

Burckhardt looked up over the top of his menu, startled. In the seat across from him, the little man named Swanson was sitting, tensely poised.

"Burckhardt!" the little man whispered again. "Let's get out of here! They're on to you now. If you want to stay alive, come on!"

There was no arguing with the man. Burckhardt gave the hovering manager a sick, apologetic smile and followed Swanson out. The little man seemed to know where he was going. In the street, he clutched Burckhardt by the elbow and hurried him off down the block.

"Did you see her?" he demanded. "That Horn woman, in the phone booth? She'll have them here in five minutes, believe me, so hurry it up!"

Although the street was full of people and cars, nobody was paying any attention to Burckhardt and Swanson. The air had a nip in it—more like October than June, Burckhardt thought, in spite of the weather bureau. And he felt like a fool, following this mad little man down the street, running away from some "them" toward—toward what? The little man might be crazy, but he was afraid. And the fear was infectious.

"In here!" panted the little man.

It was another restaurant—more of a bar, really, and a sort of second-rate place that Burckhardt had never patronized.

"Right straight through," Swanson whispered; and Burckhardt, like a biddable boy, side-stepped through the mass of tables to the far end of the

restaurant.

It was "L"-shaped, with a front on two streets at right angles to each other. They came out on the side street, Swanson staring coldly back at the question-looking cashier, and crossed to the opposite sidewalk.

They were under the marquee of a movie theater. Swanson's expression began to relax.

"Lost them!" he crowed softly. "We're almost there."

He stepped up to the window and bought two tickets. Burckhardt trailed him in to the theater. It was a weekday matinee and the place was almost empty. From the screen came sounds of gunfire and horse's hoofs. A solitary usher, leaning against a bright brass rail, looked briefly at them and went back to staring boredly at the picture as Swanson led Burckhardt down a flight of carpeted marble steps.

They were in the lounge and it was empty. There was a door for men and one for ladies; and there was a third door, marked "MANAGER" in gold letters. Swanson listened at the door, and gently opened it and peered inside.

"Okay," he said, gesturing.

Burckhardt followed him through an empty office, to another door—a closet, probably, because it was unmarked.

But it was no closet. Swanson opened it warily, looked inside, then motioned Burckhardt to follow.

It was a tunnel, metal-walled, brightly lit. Empty, it stretched vacantly away in both directions from them.

Burckhardt looked wondering around. One thing he knew and knew full well:

No such tunnel belonged under Tylerton.

There was a room off the tunnel with chairs and a desk and what looked like television screens. Swanson slumped in a chair, panting.

"We're all right for a while here," he wheezed. "They don't come here much any more. If they do, we'll hear them and we can hide."

"Who?" demanded Burckhardt.

The little man said, "Martians!" His voice cracked on the word and the life seemed to go out of him. In morose tones, he went on: "Well, I think they're

Martians. Although you could be right, you know; I've had plenty of time to think it over these last few weeks, after they got you, and it's possible they're Russians after all. Still—"

"Start from the beginning. Who got me when?"

Swanson sighed. "So we have to go through the whole thing again. All right. It was about two months ago that you banged on my door, late at night. You were all beat up—scared silly. You begged me to help you—"

"*I* did?"

"Naturally you don't remember any of this. Listen and you'll understand. You were talking a blue streak about being captured and threatened, and your wife being dead and coming back to life, and all kinds of mixed-up nonsense. I thought you were crazy. But—well, I've always had a lot of respect for you. And you begged me to hide you and I have this darkroom, you know. It locks from the inside only. I put the lock on myself. So we went in there—just to humor you—and along about midnight, which was only fifteen or twenty minutes after, we passed out."

"Passed out?"

Swanson nodded. "Both of us. It was like being hit with a sandbag. Look, didn't that happen to you again last night?"

"I guess it did," Burckhardt shook his head uncertainly.

"Sure. And then all of a sudden we were awake again, and you said you were going to show me something funny, and we went out and bought a paper. And the date on it was June 15th."

"June 15th? But that's today! I mean—"

"You got it, friend. It's *always* today!"

It took time to penetrate.

Burckhardt said wonderingly, "You've hidden out in that darkroom for how many weeks?"

"How can I tell? Four or five, maybe. I lost count. And every day the same—always the 15th of June, always my landlady, Mrs. Keefer, is sweeping the front steps, always the same headline in the papers at the corner. It gets monotonous, friend."

IV

It was Burckhardt's idea and Swanson despised it, but he went along. He was the type who always went along.

"It's dangerous," he grumbled worriedly. "Suppose somebody comes by? They'll spot us and—"

"What have we got to lose?"

Swanson shrugged. "It's dangerous," he said again. But he went along.

Burckhardt's idea was very simple. He was sure of only one thing—the tunnel went somewhere. Martians or Russians, fantastic plot or crazy hallucination, whatever was wrong with Tylerton had an explanation, and the place to look for it was at the end of the tunnel.

They jogged along. It was more than a mile before they began to see an end. They were in luck—at least no one came through the tunnel to spot them. But Swanson had said that it was only at certain hours that the tunnel seemed to be in use.

Always the fifteenth of June. Why? Burckhardt asked himself. Never mind the how. *Why?*

And falling asleep, completely involuntarily—everyone at the same time, it seemed. And not remembering, never remembering anything—Swanson had said how eagerly he saw Burckhardt again, the morning after Burckhardt had incautiously waited five minutes too many before retreating into the darkroom. When Swanson had come to, Burckhardt was gone. Swanson had seen him in the street that afternoon, but Burckhardt had remembered nothing.

And Swanson had lived his mouse's existence for weeks, hiding in the woodwork at night, stealing out by day to search for Burckhardt in pitiful hope, scurrying around the fringe of life, trying to keep from the deadly eyes of *them*.

Them. One of "them" was the girl named April Horn. It was by seeing her walk carelessly into a telephone booth and never come out that Swanson had found the tunnel. Another was the man at the cigar stand in Burckhardt's office building. There were more, at least a dozen that Swanson knew of or suspected.

They were easy enough to spot, once you knew where to look—for they, alone in Tylerton, changed their roles from day to day. Burckhardt was on that 8:51 bus, every morning of every day-that-was-June-15th, never different by a

hair or a moment. But April Horn was sometimes gaudy in the cellophane skirt, giving away candy or cigarettes; sometimes plainly dressed; sometimes not seen by Swanson at all.

Russians? Martians? Whatever they were, what could they be hoping to gain from this mad masquerade?

Burckhardt didn't know the answer—but perhaps it lay beyond the door at the end of the tunnel. They listened carefully and heard distant sounds that could not quite be made out, but nothing that seemed dangerous. They slipped through.

And, through a wide chamber and up a flight of steps, they found they were in what Burckhardt recognized as the Contro Chemicals plant.

Nobody was in sight. By itself, that was not so very odd—the automatized factory had never had very many persons in it. But Burckhardt remembered, from his single visit, the endless, ceaseless busyness of the plant, the valves that opened and closed, the vats that emptied themselves and filled themselves and stirred and cooked and chemically tasted the bubbling liquids they held inside themselves. The plant was never populated, but it was never still.

Only—now it *was* still. Except for the distant sounds, there was no breath of life in it. The captive electronic minds were sending out no commands; the coils and relays were at rest.

Burckhardt said, "Come on." Swanson reluctantly followed him through the tangled aisles of stainless steel columns and tanks.

They walked as though they were in the presence of the dead. In a way, they were, for what were the automatons that once had run the factory, if not corpses? The machines were controlled by computers that were really not computers at all, but the electronic analogues of living brains. And if they were turned off, were they not dead? For each had once been a human mind.

Take a master petroleum chemist, infinitely skilled in the separation of crude oil into its fractions. Strap him down, probe into his brain with searching electronic needles. The machine scans the patterns of the mind, translates what it sees into charts and sine waves. Impress these same waves on a robot computer and you have your chemist. Or a thousand copies of your chemist, if you wish, with all of his knowledge and skill, and no human limitations at all.

Put a dozen copies of him into a plant and they will run it all, twenty-four hours a day, seven days of every week, never tiring, never overlooking anything, never forgetting....

Swanson stepped up closer to Burckhardt. "I'm scared," he said.

They were across the room now and the sounds were louder. They were not machine sounds, but voices; Burckhardt moved cautiously up to a door and dared to peer around it.

It was a smaller room, lined with television screens, each one—a dozen or more, at least—with a man or woman sitting before it, staring into the screen and dictating notes into a recorder. The viewers dialed from scene to scene; no two screens ever showed the same picture.

The pictures seemed to have little in common. One was a store, where a girl dressed like April Horn was demonstrating home freezers. One was a series of shots of kitchens. Burckhardt caught a glimpse of what looked like the cigar stand in his office building.

It was baffling and Burckhardt would have loved to stand there and puzzle it out, but it was too busy a place. There was the chance that someone would look their way or walk out and find them.

They found another room. This one was empty. It was an office, large and sumptuous. It had a desk, littered with papers. Burckhardt stared at them, briefly at first—then, as the words on one of them caught his attention, with incredulous fascination.

He snatched up the topmost sheet, scanned it, and another, while Swanson was frenziedly searching through the drawers.

Burckhardt swore unbelievingly and dropped the papers to the desk.

Swanson, hardly noticing, yelped with delight: "Look!" He dragged a gun from the desk. "And it's loaded, too!"

Burckhardt stared at him blankly, trying to assimilate what he had read. Then, as he realized what Swanson had said, Burckhardt's eyes sparked. "Good man!" he cried. "We'll take it. We're getting out of here with that gun, Swanson. And we're going to the police! Not the cops in Tylerton, but the F.B.I., maybe. Take a look at this!"

The sheaf he handed Swanson was headed: "Test Area Progress Report.

Subject: Marlin Cigarettes Campaign." It was mostly tabulated figures that made little sense to Burckhardt and Swanson, but at the end was a summary that said:

Although Test 47-K3 pulled nearly double the number of new users of any of the other tests conducted, it probably cannot be used in the field because of local sound-truck control ordinances.

The tests in the 47-K12 group were second best and our recommendation is that retests be conducted in this appeal, testing each of the three best campaigns with and without the addition of sampling techniques.

An alternative suggestion might be to proceed directly with the top appeal in the K12 series, if the client is unwilling to go to the expense of additional tests.

All of these forecast expectations have an 80% probability of being within one-half of one per cent of results forecast, and more than 99% probability of coming within 5%.

Swanson looked up from the paper into Burckhardt's eyes. "I don't get it," he complained.

Burckhardt said, "I don't blame you. It's crazy, but it fits the facts, Swanson, *it fits the facts*. They aren't Russians and they aren't Martians. These people are advertising men! Somehow—heaven knows how they did it—they've taken Tylerton over. They've got us, all of us, you and me and twenty or thirty thousand other people, right under their thumbs.

"Maybe they hypnotize us and maybe it's something else; but however they do it, what happens is that they let us live a day at a time. They pour advertising into us the whole damned day long. And at the end of the day, they see what happened—and then they wash the day out of our minds and start again the next day with different advertising."

Swanson's jaw was hanging. He managed to close it and swallow. "Nuts!" he said flatly.

Burckhardt shook his head. "Sure, it sounds crazy—but this whole thing is crazy. How else would you explain it? You can't deny that most of Tylerton lives the same day over and over again. You've *seen* it! And that's the crazy part and we have to admit that that's true—unless we are the crazy ones. And once you

admit that somebody, somehow, knows how to accomplish that, the rest of it makes all kinds of sense.

"Think of it, Swanson! They test every last detail before they spend a nickel on advertising! Do you have any idea what that means? Lord knows how much money is involved, but I know for a fact that some companies spend twenty or thirty million dollars a year on advertising. Multiply it, say, by a hundred companies. Say that every one of them learns how to cut its advertising cost by only ten per cent. And that's peanuts, believe me!

"If they know in advance what's going to work, they can cut their costs in half—maybe to less than half, I don't know. But that's saving two or three hundred million dollars a year—and if they pay only ten or twenty per cent of that for the use of Tylerton, it's still dirt cheap for them and a fortune for whoever took over Tylerton."

Swanson licked his lips. "You mean," he offered hesitantly, "that we're a—well, a kind of captive audience?"

Burckhardt frowned. "Not exactly." He thought for a minute. "You know how a doctor tests something like penicillin? He sets up a series of little colonies of germs on gelatine disks and he tries the stuff on one after another, changing it a little each time. Well, that's us—we're the germs, Swanson. Only it's even more efficient than that. They don't have to test more than one colony, because they can use it over and over again."

It was too hard for Swanson to take in. He only said: "What do we do about it?"

"We go to the police. They can't use human beings for guinea pigs!"

"How do we get to the police?"

Burckhardt hesitated. "I think—" he began slowly. "Sure. This place is the office of somebody important. We've got a gun. We'll stay right here until he comes along. And he'll get us out of here."

Simple and direct. Swanson subsided and found a place to sit, against the wall, out of sight of the door. Burckhardt took up a position behind the door itself—

And waited.

The wait was not as long as it might have been. Half an hour, perhaps. Then

Burckhardt heard approaching voices and had time for a swift whisper to Swanson before he flattened himself against the wall.

It was a man's voice, and a girl's. The man was saying, "—reason why you couldn't report on the phone? You're ruining your whole day's test! What the devil's the matter with you, Janet?"

"I'm sorry, Mr. Dorchin," she said in a sweet, clear tone. "I thought it was important."

The man grumbled, "Important! One lousy unit out of twenty-one thousand."

"But it's the Burckhardt one, Mr. Dorchin. Again. And the way he got out of sight, he must have had some help."

"All right, all right. It doesn't matter, Janet; the Choco-Bite program is ahead of schedule anyhow. As long as you're this far, come on in the office and make out your worksheet. And don't worry about the Burckhardt business. He's probably just wandering around. We'll pick him up tonight and—"

They were inside the door. Burckhardt kicked it shut and pointed the gun.

"That's what you think," he said triumphantly.

It was worth the terrified hours, the bewildered sense of insanity, the confusion and fear. It was the most satisfying sensation Burckhardt had ever had in his life. The expression on the man's face was one he had read about but never actually seen: Dorchin's mouth fell open and his eyes went wide, and though he managed to make a sound that might have been a question, it was not in words.

The girl was almost as surprised. And Burckhardt, looking at her, knew why her voice had been so familiar. The girl was the one who had introduced herself to him as April Horn.

Dorchin recovered himself quickly. "Is this the one?" he asked sharply.

The girl said, "Yes."

Dorchin nodded. "I take it back. You were right. Uh, you—Burckhardt. What do you want?"

Swanson piped up, "Watch him! He might have another gun."

"Search him then," Burckhardt said. "I'll tell you what we want, Dorchin. We want you to come along with us to the FBI and explain to them how you can

get away with kidnapping twenty thousand people."

"Kidnapping?" Dorchin snorted. "That's ridiculous, man! Put that gun away —you can't get away with this!"

Burckhardt hefted the gun grimly. "I think I can."

Dorchin looked furious and sick—but, oddly, not afraid. "Damn it—" he started to bellow, then closed his mouth and swallowed. "Listen," he said persuasively, "you're making a big mistake. I haven't kidnapped anybody, believe me!"

"I don't believe you," said Burckhardt bluntly. "Why should I?"

"But it's true! Take my word for it!"

Burckhardt shook his head. "The FBI can take your word if they like. We'll find out. Now how do we get out of here?"

Dorchin opened his mouth to argue.

Burckhardt blazed: "Don't get in my way! I'm willing to kill you if I have to. Don't you understand that? I've gone through two days of hell and every second of it I blame on you. Kill you? It would be a pleasure and I don't have a thing in the world to lose! Get us out of here!"

Dorchin's face went suddenly opaque. He seemed about to move; but the blonde girl he had called Janet slipped between him and the gun.

"Please!" she begged Burckhardt. "You don't understand. You mustn't shoot!"

"*Get out of my way!*"

"But, Mr. Burckhardt—"

She never finished. Dorchin, his face unreadable, headed for the door. Burckhardt had been pushed one degree too far. He swung the gun, bellowing. The girl called out sharply. He pulled the trigger. Closing on him with pity and pleading in her eyes, she came again between the gun and the man.

Burckhardt aimed low instinctively, to cripple, not to kill. But his aim was not good.

The pistol bullet caught her in the pit of the stomach.

Dorchin was out and away, the door slamming behind him, his footsteps racing into the distance.

Burckhardt hurled the gun across the room and jumped to the girl.

Swanson was moaning. "That finishes us, Burckhardt. Oh, why did you do it? We could have got away. We could have gone to the police. We were practically out of here! We—"

Burckhardt wasn't listening. He was kneeling beside the girl. She lay flat on her back, arms helter-skelter. There was no blood, hardly any sign of the wound; but the position in which she lay was one that no living human being could have held.

Yet she wasn't dead.

She wasn't dead—and Burckhardt, frozen beside her, thought: *She isn't alive, either.*

There was no pulse, but there was a rhythmic ticking of the outstretched fingers of one hand.

There was no sound of breathing, but there was a hissing, sizzling noise.

The eyes were open and they were looking at Burckhardt. There was neither fear nor pain in them, only a pity deeper than the Pit.

She said, through lips that writhed erratically, "Don't—worry, Mr. Burckhardt. I'm—all right."

Burckhardt rocked back on his haunches, staring. Where there should have been blood, there was a clean break of a substance that was not flesh; and a curl of thin golden-copper wire.

Burckhardt moistened his lips.

"You're a robot," he said.

The girl tried to nod. The twitching lips said, "I am. And so are you."

V

Swanson, after a single inarticulate sound, walked over to the desk and sat staring at the wall. Burckhardt rocked back and forth beside the shattered puppet on the floor. He had no words.

The girl managed to say, "I'm—sorry all this happened." The lovely lips twisted into a rictus sneer, frightening on that smooth young face, until she got them under control. "Sorry," she said again. "The—nerve center was right about where the bullet hit. Makes it difficult to—control this body."

Burckhardt nodded automatically, accepting the apology. Robots. It was obvious, now that he knew it. In hindsight, it was inevitable. He thought of his mystic notions of hypnosis or Martians or something stranger still—idiotic, for the simple fact of created robots fitted the facts better and more economically.

All the evidence had been before him. The automatized factory, with its transplanted minds—why not transplant a mind into a humanoid robot, give it its original owner's features and form?

Could it know that it was a robot?

"All of us," Burckhardt said, hardly aware that he spoke out loud. "My wife and my secretary and you and the neighbors. All of us the same."

"No." The voice was stronger. "Not exactly the same, all of us. I chose it, you see. I—" this time the convulsed lips were not a random contortion of the nerves—"I was an ugly woman, Mr. Burckhardt, and nearly sixty years old. Life had passed me. And when Mr. Dorchin offered me the chance to live again as a beautiful girl, I jumped at the opportunity. Believe me, I *jumped*, in spite of its disadvantages. My flesh body is still alive—it is sleeping, while I am here. I could go back to it. But I never do."

"And the rest of us?"

"Different, Mr. Burckhardt. I work here. I'm carrying out Mr. Dorchin's orders, mapping the results of the advertising tests, watching you and the others live as he makes you live. I do it by choice, but you have no choice. Because, you see, you are dead."

"Dead?" cried Burckhardt; it was almost a scream.

The blue eyes looked at him unwinkingly and he knew that it was no lie. He swallowed, marveling at the intricate mechanisms that let him swallow, and

sweat, and eat.

He said: "Oh. The explosion in my dream."

"It was no dream. You are right—the explosion. That was real and this plant was the cause of it. The storage tanks let go and what the blast didn't get, the fumes killed a little later. But almost everyone died in the blast, twenty-one thousand persons. You died with them and that was Dorchin's chance."

"The damned ghoul!" said Burckhardt.

The twisted shoulders shrugged with an odd grace. "Why? You were gone. And you and all the others were what Dorchin wanted—a whole town, a perfect slice of America. It's as easy to transfer a pattern from a dead brain as a living one. Easier—the dead can't say no. Oh, it took work and money—the town was a wreck—but it was possible to rebuild it entirely, especially because it wasn't necessary to have all the details exact.

"There were the homes where even the brains had been utterly destroyed, and those are empty inside, and the cellars that needn't be too perfect, and the streets that hardly matter. And anyway, it only has to last for one day. The same day—June 15th—over and over again; and if someone finds something a little wrong, somehow, the discovery won't have time to snowball, wreck the validity of the tests, because all errors are canceled out at midnight."

The face tried to smile. "That's the dream, Mr. Burckhardt, that day of June 15th, because you never really lived it. It's a present from Mr. Dorchin, a dream that he gives you and then takes back at the end of the day, when he has all his figures on how many of you responded to what variation of which appeal, and the maintenance crews go down the tunnel to go through the whole city, washing out the new dream with their little electronic drains, and then the dream starts all over again. On June 15th.

"Always June 15th, because June 14th is the last day any of you can remember alive. Sometimes the crews miss someone—as they missed you, because you were under your boat. But it doesn't matter. The ones who are missed give themselves away if they show it—and if they don't, it doesn't affect the test. But they don't drain us, the ones of us who work for Dorchin. We sleep when the power is turned off, just as you do. When we wake up, though, we remember." The face contorted wildly. "If I could only forget!"

Burckhardt said unbelievingly, "All this to sell merchandise! It must have cost millions!"

The robot called April Horn said, "It did. But it has made millions for Dorchin, too. And that's not the end of it. Once he finds the master words that make people act, do you suppose he will stop with that? Do you suppose—"

The door opened, interrupting her. Burckhardt whirled. Belatedly remembering Dorchin's flight, he raised the gun.

"Don't shoot," ordered the voice calmly. It was not Dorchin; it was another robot, this one not disguised with the clever plastics and cosmetics, but shining plain. It said metallically: "Forget it, Burckhardt. You're not accomplishing anything. Give me that gun before you do any more damage. Give it to me *now*."

Burckhardt bellowed angrily. The gleam on this robot torso was steel; Burckhardt was not at all sure that his bullets would pierce it, or do much harm if they did. He would have put it to the test—

But from behind him came a whimpering, scurrying whirlwind; its name was Swanson, hysterical with fear. He catapulted into Burckhardt and sent him sprawling, the gun flying free.

"Please!" begged Swanson incoherently, prostrate before the steel robot. "He would have shot you—please don't hurt me! Let me work for you, like that girl. I'll do anything, anything you tell me—"

The robot voice said. "We don't need your help." It took two precise steps and stood over the gun—and spurned it, left it lying on the floor.

The wrecked blonde robot said, without emotion, "I doubt that I can hold out much longer, Mr. Dorchin."

"Disconnect if you have to," replied the steel robot.

Burckhardt blinked. "But you're not Dorchin!"

The steel robot turned deep eyes on him. "I am," it said. "Not in the flesh—but this is the body I am using at the moment. I doubt that you can damage this one with the gun. The other robot body was more vulnerable. Now will you stop this nonsense? I don't want to have to damage you; you're too expensive for that. Will you just sit down and let the maintenance crews adjust you?"

Swanson groveled. "You—you won't punish us?"

The steel robot had no expression, but its voice was almost surprised.

"Punish you?" it repeated on a rising note. "How?"

Swanson quivered as though the word had been a whip; but Burckhardt flared: "Adjust *him*, if he'll let you—but not me! You're going to have to do me a lot of damage, Dorchin. I don't care what I cost or how much trouble it's going to be to put me back together again. But I'm going out of that door! If you want to stop me, you'll have to kill me. You won't stop me any other way!"

The steel robot took a half-step toward him, and Burckhardt involuntarily checked his stride. He stood poised and shaking, ready for death, ready for attack, ready for anything that might happen.

Ready for anything except what did happen. For Dorchin's steel body merely stepped aside, between Burckhardt and the gun, but leaving the door free.

"Go ahead," invited the steel robot. "Nobody's stopping you."

Outside the door, Burckhardt brought up sharp. It was insane of Dorchin to let him go! Robot or flesh, victim or beneficiary, there was nothing to stop him from going to the FBI or whatever law he could find away from Dorchin's synthetic empire, and telling his story. Surely the corporations who paid Dorchin for test results had no notion of the ghoul's technique he used; Dorchin would have to keep it from them, for the breath of publicity would put a stop to it. Walking out meant death, perhaps—but at that moment in his pseudo-life, death was no terror for Burckhardt.

There was no one in the corridor. He found a window and stared out of it. There was Tylerton—an ersatz city, but looking so real and familiar that Burckhardt almost imagined the whole episode a dream. It was no dream, though. He was certain of that in his heart and equally certain that nothing in Tylerton could help him now.

It had to be the other direction.

It took him a quarter of an hour to find a way, but he found it—skulking through the corridors, dodging the suspicion of footsteps, knowing for certain that his hiding was in vain, for Dorchin was undoubtedly aware of every move he made. But no one stopped him, and he found another door.

It was a simple enough door from the inside. But when he opened it and stepped out, it was like nothing he had ever seen.

First there was light—brilliant, incredible, blinding light. Burckhardt blinked upward, unbelieving and afraid.

He was standing on a ledge of smooth, finished metal. Not a dozen yards from his feet, the ledge dropped sharply away; he hardly dared approach the brink, but even from where he stood he could see no bottom to the chasm before him. And the gulf extended out of sight into the glare on either side of him.

No wonder Dorchin could so easily give him his freedom! From the factory, there was nowhere to go—but how incredible this fantastic gulf, how impossible the hundred white and blinding suns that hung above!

A voice by his side said inquiringly, "Burckhardt?" And thunder rolled the name, mutteringly soft, back and forth in the abyss before him.

Burckhardt wet his lips. "Y-yes?" he croaked.

"This is Dorchin. Not a robot this time, but Dorchin in the flesh, talking to you on a hand mike. Now you have seen, Burckhardt. Now will you be reasonable and let the maintenance crews take over?"

Burckhardt stood paralyzed. One of the moving mountains in the blinding glare came toward him.

It towered hundreds of feet over his head; he stared up at its top, squinting helplessly into the light.

It looked like—

Impossible!

The voice in the loudspeaker at the door said, "Burckhardt?" But he was unable to answer.

A heavy rumbling sigh. "I see," said the voice. "You finally understand. There's no place to go. You know it now. I could have told you, but you might not have believed me, so it was better for you to see it yourself. And after all, Burckhardt, why would I reconstruct a city just the way it was before? I'm a businessman; I count costs. If a thing has to be full-scale, I build it that way. But there wasn't any need to in this case."

From the mountain before him, Burckhardt helplessly saw a lesser cliff descend carefully toward him. It was long and dark, and at the end of it was whiteness, five-fingered whiteness....

"Poor little Burckhardt," crooned the loudspeaker, while the echoes

rumbled through the enormous chasm that was only a workshop. “It must have been quite a shock for you to find out you were living in a town built on a table top.”

VI

It was the morning of June 15th, and Guy Burckhardt woke up screaming out of a dream.

It had been a monstrous and incomprehensible dream, of explosions and shadowy figures that were not men and terror beyond words.

He shuddered and opened his eyes.

Outside his bedroom window, a hugely amplified voice was howling.

Burckhardt stumbled over to the window and stared outside. There was an out-of-season chill to the air, more like October than June; but the scent was normal enough—except for the sound-truck that squatted at curbside halfway down the block. Its speaker horns blared:

"Are you a coward? Are you a fool? Are you going to let crooked politicians steal the country from you? NO! Are you going to put up with four more years of graft and crime? NO! Are you going to vote straight Federal Party all up and down the ballot? YES! *You just bet you are!*"

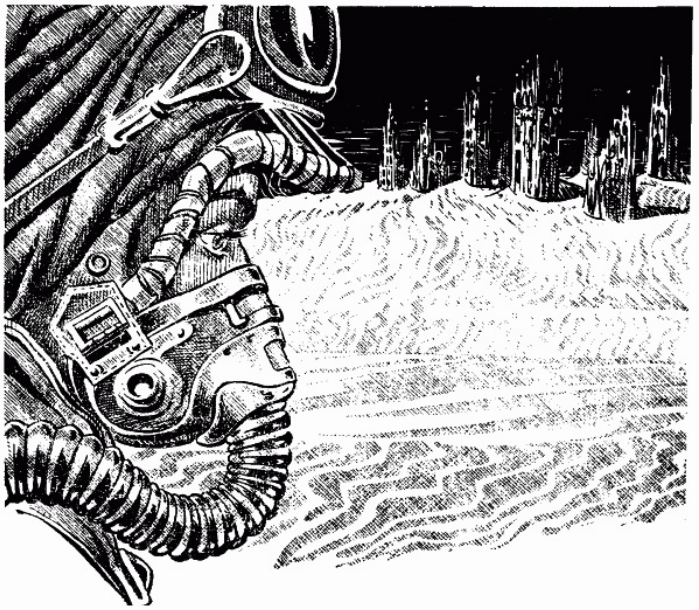
Sometimes he screams, sometimes he wheedles, threatens, begs, cajoles ... but his voice goes on and on through one June 15th after another.

—FREDERIK POHL

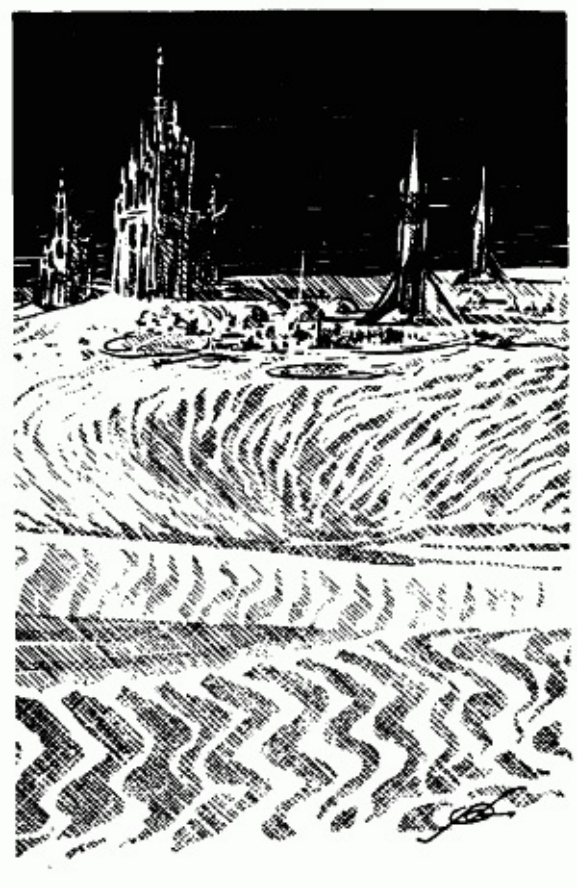
OMNILINGUAL



H. Beam Piper



To translate writings, you need a key to the code—and if the last writer of Martian died forty thousand years before the first writer of Earth was born ... how could the Martian be translated...?



Martha Dane paused, looking up at the purple-tinged copper sky. The wind had shifted since noon, while she had been inside, and the dust storm that was sweeping the high deserts to the east was now blowing out over Syrtis. The sun, magnified by the haze, was a gorgeous magenta ball, as large as the sun of Terra, at which she could look directly. Tonight, some of that dust would come sifting down from the upper atmosphere to add another film to what had been burying the city for the last fifty thousand years.

The red loess lay over everything, covering the streets and the open spaces of park and plaza, hiding the small houses that had been crushed and pressed flat under it and the rubble that had come down from the tall buildings when roofs had caved in and walls had toppled outward. Here, where she stood, the ancient streets were a hundred to a hundred and fifty feet below the surface; the breach they had made in the wall of the building behind her had opened into the sixth story. She could look down on the cluster of prefabricated huts and sheds, on the brush-grown flat that had been the waterfront when this place had been a seaport on the ocean that was now Syrtis Depression; already, the bright

metal was thinly coated with red dust. She thought, again, of what clearing this city would mean, in terms of time and labor, of people and supplies and equipment brought across fifty million miles of space. They'd have to use machinery; there was no other way it could be done. Bulldozers and power shovels and draglines; they were fast, but they were rough and indiscriminate. She remembered the digs around Harappa and Mohenjo-Daro, in the Indus Valley, and the careful, patient native laborers—the painstaking foremen, the pickmen and spademen, the long files of basketmen carrying away the earth. Slow and primitive as the civilization whose ruins they were uncovering, yes, but she could count on the fingers of one hand the times one of her pickmen had damaged a valuable object in the ground. If it hadn't been for the underpaid and uncomplaining native laborer, archaeology would still be back where Wincklemann had found it. But on Mars there was no native labor; the last Martian had died five hundred centuries ago.

Something started banging like a machine gun, four or five hundred yards to her left. A solenoid jack-hammer; Tony Lattimer must have decided which building he wanted to break into next. She became conscious, then, of the awkward weight of her equipment, and began redistributing it, shifting the straps of her oxy-tank pack, slinging the camera from one shoulder and the board and drafting tools from the other, gathering the notebooks and sketchbooks under her left arm. She started walking down the road, over hillocks of buried rubble, around snags of wall jutting up out of the loess, past buildings still standing, some of them already breached and explored, and across the brush-grown flat to the huts.

There were ten people in the main office room of Hut One when she entered. As soon as she had disposed of her oxygen equipment, she lit a cigarette, her first since noon, then looked from one to another of them. Old Selim von Ohlmhorst, the Turco-German, one of her two fellow archaeologists, sitting at the end of the long table against the farther wall, smoking his big curved pipe and going through a looseleaf notebook. The girl ordnance officer, Sachiko Koremitsu, between two droplights at the other end of the table, her head bent over her work. Colonel Hubert Penrose, the Space Force CO, and Captain Field, the intelligence officer, listening to the report of one of the

airdyne pilots, returned from his afternoon survey flight. A couple of girl lieutenants from Signals, going over the script of the evening telecast, to be transmitted to the *Cyrano*, on orbit five thousand miles off planet and relayed from thence to Terra via Lunar. Sid Chamberlain, the Trans-Space News Service man, was with them. Like Selim and herself, he was a civilian; he was advertising the fact with a white shirt and a sleeveless blue sweater. And Major Lindemann, the engineer officer, and one of his assistants, arguing over some plans on a drafting board. She hoped, drawing a pint of hot water to wash her hands and sponge off her face, that they were doing something about the pipeline.

She started to carry the notebooks and sketchbooks over to where Selim von Ohlmhorst was sitting, and then, as she always did, she turned aside and stopped to watch Sachiko. The Japanese girl was restoring what had been a book, fifty thousand years ago; her eyes were masked by a binocular loup, the black headband invisible against her glossy black hair, and she was picking delicately at the crumbled page with a hair-fine wire set in a handle of copper tubing. Finally, loosening a particle as tiny as a snowflake, she grasped it with tweezers, placed it on the sheet of transparent plastic on which she was reconstructing the page, and set it with a mist of fixative from a little spraygun. It was a sheer joy to watch her; every movement was as graceful and precise as though done to music after being rehearsed a hundred times.

"Hello, Martha. It isn't cocktail-time yet, is it?" The girl at the table spoke without raising her head, almost without moving her lips, as though she were afraid that the slightest breath would disturb the flaky stuff in front of her.

"No, it's only fifteen-thirty. I finished my work, over there. I didn't find any more books, if that's good news for you."

Sachiko took off the loup and leaned back in her chair, her palms cupped over her eyes.

"No, I like doing this. I call it micro-jigsaw puzzles. This book, here, really is a mess. Selim found it lying open, with some heavy stuff on top of it; the pages were simply crushed." She hesitated briefly. "If only it would mean something, after I did it."

There could be a faintly critical overtone to that. As she replied, Martha realized that she was being defensive.

"It will, some day. Look how long it took to read Egyptian hieroglyphics, even after they had the Rosetta Stone."

Sachiko smiled. "Yes. I know. But they did have the Rosetta Stone."

"And we don't. There is no Rosetta Stone, not anywhere on Mars. A whole race, a whole species, died while the first Crò-Magnon cave-artist was daubing pictures of reindeer and bison, and across fifty thousand years and fifty million miles there was no bridge of understanding.

"We'll find one. There must be something, somewhere, that will give us the meaning of a few words, and we'll use them to pry meaning out of more words, and so on. We may not live to learn this language, but we'll make a start, and some day somebody will."

Sachiko took her hands from her eyes, being careful not to look toward the unshaded light, and smiled again. This time Martha was sure that it was not the Japanese smile of politeness, but the universally human smile of friendship.

"I hope so, Martha: really I do. It would be wonderful for you to be the first to do it, and it would be wonderful for all of us to be able to read what these people wrote. It would really bring this dead city to life again." The smile faded slowly. "But it seems so hopeless."

"You haven't found any more pictures?"

Sachiko shook her head. Not that it would have meant much if she had. They had found hundreds of pictures with captions; they had never been able to establish a positive relationship between any pictured object and any printed word. Neither of them said anything more, and after a moment Sachiko replaced the loup and bent her head forward over the book.

Selim von Ohlmhorst looked up from his notebook, taking his pipe out of his mouth.

"Everything finished, over there?" he asked, releasing a puff of smoke.

"Such as it was." She laid the notebooks and sketches on the table. "Captain Gicquel's started airsealing the building from the fifth floor down, with an entrance on the sixth; he'll start putting in oxygen generators as soon as that's done. I have everything cleared up where he'll be working."

Colonel Penrose looked up quickly, as though making a mental note to attend to something later. Then he returned his attention to the pilot, who was

pointing something out on a map.

Von Ohlmhorst nodded. "There wasn't much to it, at that," he agreed. "Do you know which building Tony has decided to enter next?"

"The tall one with the conical thing like a candle extinguisher on top, I think. I heard him drilling for the blasting shots over that way."

"Well, I hope it turns out to be one that was occupied up to the end."

The last one hadn't. It had been stripped of its contents and fittings, a piece of this and a bit of that, haphazardly, apparently over a long period of time, until it had been almost gutted. For centuries, as it had died, this city had been consuming itself by a process of auto-cannibalism. She said something to that effect.

"Yes. We always find that—except, of course, at places like Pompeii. Have you seen any of the other Roman cities in Italy?" he asked. "Minturnae, for instance? First the inhabitants tore down this to repair that, and then, after they had vacated the city, other people came along and tore down what was left, and burned the stones for lime, or crushed them to mend roads, till there was nothing left but the foundation traces. That's where we are fortunate; this is one of the places where the Martian race perished, and there were no barbarians to come later and destroy what they had left." He puffed slowly at his pipe. "Some of these days, Martha, we are going to break into one of these buildings and find that it was one in which the last of these people died. Then we will learn the story of the end of this civilization."

And if we learn to read their language, we'll learn the whole story, not just the obituary. She hesitated, not putting the thought into words. "We'll find that, sometime, Selim," she said, then looked at her watch. "I'm going to get some more work done on my lists, before dinner."

For an instant, the old man's face stiffened in disapproval; he started to say something, thought better of it, and put his pipe back into his mouth. The brief wrinkling around his mouth and the twitch of his white mustache had been enough, however; she knew what he was thinking. She was wasting time and effort, he believed; time and effort belonging not to herself but to the expedition. He could be right, too, she realized. But he had to be wrong; there had to be a way to do it. She turned from him silently and went to her own packing-case seat, at the middle of the table.

Photographs, and photostats of restored pages of books, and transcripts of inscriptions, were piled in front of her, and the notebooks in which she was compiling her lists. She sat down, lighting a fresh cigarette, and reached over to a stack of unexamined material, taking off the top sheet. It was a photostat of what looked like the title page and contents of some sort of a periodical. She remembered it; she had found it herself, two days before, in a closet in the basement of the building she had just finished examining.

She sat for a moment, looking at it. It was readable, in the sense that she had set up a purely arbitrary but consistently pronounceable system of phonetic values for the letters. The long vertical symbols were vowels. There were only ten of them; not too many, allowing separate characters for long and short sounds. There were twenty of the short horizontal letters, which meant that sounds like -ng or -ch or -sh were single letters. The odds were millions to one against her system being anything like the original sound of the language, but she had listed several thousand Martian words, and she could pronounce all of them.

And that was as far as it went. She could pronounce between three and four thousand Martian words, and she couldn't assign a meaning to one of them. Selim von Ohlmhorst believed that she never would. So did Tony Lattimer, and he was a great deal less reticent about saying so. So, she was sure, did Sachiko Koremitsu. There were times, now and then, when she began to be afraid that they were right.

The letters on the page in front of her began squirming and dancing, slender vowels with fat little consonants. They did that, now, every night in her dreams. And there were other dreams, in which she read them as easily as English; waking, she would try desperately and vainly to remember. She blinked, and looked away from the photostatted page; when she looked back, the letters were behaving themselves again. There were three words at the top of the page, over-and-underlined, which seemed to be the Martian method of capitalization. *Mastharnorvod Tadavas Sornhulva*. She pronounced them mentally, leafing through her notebooks to see if she had encountered them before, and in what contexts. All three were listed. In addition, *masthar* was a fairly common word, and so was *norvod*, and so was *nor*, but *-vod* was a suffix and nothing but a

suffix. *Davas*, was a word, too, and *ta-* was a common prefix; *sorn* and *hulva* were both common words. This language, she had long ago decided, must be something like German; when the Martians had needed a new word, they had just pasted a couple of existing words together. It would probably turn out to be a grammatical horror. Well, they had published magazines, and one of them had been called*Mastharnorvod Tadavas Sornhulva*. She wondered if it had been something like the *Quarterly Archaeological Review*, or something more on the order of *Sexy Stories*.

A smaller line, under the title, was plainly the issue number and date; enough things had been found numbered in series to enable her to identify the numerals and determine that a decimal system of numeration had been used. This was the one thousand and seven hundred and fifty-fourth issue, for Doma, 14837; then Doma must be the name of one of the Martian months. The word had turned up several times before. She found herself puffing furiously on her cigarette as she leafed through notebooks and piles of already examined material.

Sachiko was speaking to somebody, and a chair scraped at the end of the table. She raised her head, to see a big man with red hair and a red face, in Space Force green, with the single star of a major on his shoulder, sitting down. Ivan Fitzgerald, the medic. He was lifting weights from a book similar to the one the girl ordnance officer was restoring.

"Haven't had time, lately," he was saying, in reply to Sachiko's question. "The Finchley girl's still down with whatever it is she has, and it's something I haven't been able to diagnose yet. And I've been checking on bacteria cultures, and in what spare time I have, I've been dissecting specimens for Bill Chandler. Bill's finally found a mammal. Looks like a lizard, and it's only four inches long, but it's a real warm-blooded, gamogenetic, placental, viviparous mammal. Burrows, and seems to live on what pass for insects here."

"Is there enough oxygen for anything like that?" Sachiko was asking.

"Seems to be, close to the ground." Fitzgerald got the headband of his loup adjusted, and pulled it down over his eyes. "He found this thing in a ravine down on the sea bottom—Ha, this page seems to be intact; now, if I can get it out all in one piece—"

He went on talking inaudibly to himself, lifting the page a little at a time and sliding one of the transparent plastic sheets under it, working with minute delicacy. Not the delicacy of the Japanese girl's small hands, moving like the paws of a cat washing her face, but like a steam-hammer cracking a peanut. Field archaeology requires a certain delicacy of touch, too, but Martha watched the pair of them with envious admiration. Then she turned back to her own work, finishing the table of contents.

The next page was the beginning of the first article listed; many of the words were unfamiliar. She had the impression that this must be some kind of scientific or technical journal; that could be because such publications made up the bulk of her own periodical reading. She doubted if it were fiction; the paragraphs had a solid, factual look.

At length, Ivan Fitzgerald gave a short, explosive grunt.

"Ha! Got it!"

She looked up. He had detached the page and was cementing another plastic sheet onto it.

"Any pictures?" she asked.

"None on this side. Wait a moment." He turned the sheet. "None on this side, either." He sprayed another sheet of plastic to sandwich the page, then picked up his pipe and relighted it.

"I get fun out of this, and it's good practice for my hands, so don't think I'm complaining," he said, "but, Martha, do you honestly think anybody's ever going to get anything out of this?"

Sachiko held up a scrap of the silicone plastic the Martians had used for paper with her tweezers. It was almost an inch square.

"Look; three whole words on this piece," she crowed. "Ivan, you took the easy book."

Fitzgerald wasn't being sidetracked. "This stuff's absolutely meaningless," he continued. "It had a meaning fifty thousand years ago, when it was written, but it has none at all now."

She shook her head. "Meaning isn't something that evaporates with time," she argued. "It has just as much meaning now as it ever had. We just haven't learned how to decipher it."

"That seems like a pretty pointless distinction," Selim von Ohlmhorst

joined the conversation. “There no longer exists a means of deciphering it.”

“We’ll find one.” She was speaking, she realized, more in self-encouragement than in controversy.

“How? From pictures and captions? We’ve found captioned pictures, and what have they given us? A caption is intended to explain the picture, not the picture to explain the caption. Suppose some alien to our culture found a picture of a man with a white beard and mustache sawing a billet from a log. He would think the caption meant, ‘Man Sawing Wood.’ How would he know that it was really ‘Wilhelm II in Exile at Doorn?’”

Sachiko had taken off her loup and was lighting a cigarette.

“I can think of pictures intended to explain their captions,” she said. “These picture language-books, the sort we use in the Service—little line drawings, with a word or phrase under them.”

“Well, of course, if we found something like that,” von Ohlmhorst began.

“Michael Ventris found something like that, back in the Fifties,” Hubert Penrose’s voice broke in from directly behind her.

She turned her head. The colonel was standing by the archaeologists’ table; Captain Field and the airdyne pilot had gone out.

“He found a lot of Greek inventories of military stores,” Penrose continued. “They were in Cretan Linear B script, and at the head of each list was a little picture, a sword or a helmet or a cooking tripod or a chariot wheel. That’s what gave him the key to the script.”

“Colonel’s getting to be quite an archaeologist,” Fitzgerald commented. “We’re all learning each others’ specialties, on this expedition.”

“I heard about that long before this expedition was even contemplated.” Penrose was tapping a cigarette on his gold case. “I heard about that back before the Thirty Days’ War, at Intelligence School, when I was a lieutenant. As a feat of cryptanalysis, not an archaeological discovery.”

“Yes, cryptanalysis,” von Ohlmhorst pounced. “The reading of a known language in an unknown form of writing. Ventris’ lists were in the known language, Greek. Neither he nor anybody else ever read a word of the Cretan language until the finding of the Greek-Cretan bilingual in 1963, because only with a bilingual text, one language already known, can an unknown ancient

language be learned. And what hope, I ask you, have we of finding anything like that here? Martha, you've been working on these Martian texts ever since we landed here—for the last six months. Tell me, have you found a single word to which you can positively assign a meaning?"

"Yes, I think I have one." She was trying hard not to sound too exultant. "*Doma.* It's the name of one of the months of the Martian calendar."

"Where did you find that?" von Ohlmhorst asked. "And how did you establish—?"

"Here." She picked up the photostat and handed it along the table to him. "I'd call this the title page of a magazine."

He was silent for a moment, looking at it. "Yes. I would say so, too. Have you any of the rest of it?"

"I'm working on the first page of the first article, listed there. Wait till I see; yes, here's all I found, together, here." She told him where she had gotten it. "I just gathered it up, at the time, and gave it to Geoffrey and Rosita to photostat; this is the first I've really examined it."

The old man got to his feet, brushing tobacco ashes from the front of his jacket, and came to where she was sitting, laying the title page on the table and leafing quickly through the stack of photostats.



"Yes, and here is the second article, on page eight, and here's the next one." He finished the pile of photostats. "A couple of pages missing at the end of the last article. This is remarkable; surprising that a thing like a magazine would have survived so long."

"Well, this silicone stuff the Martians used for paper is pretty durable," Hubert Penrose said. "There doesn't seem to have been any water or any other fluid in it originally, so it wouldn't dry out with time."

"Oh, it's not remarkable that the material would have survived. We've found a good many books and papers in excellent condition. But only a really vital culture, an organized culture, will publish magazines, and this civilization had been dying for hundreds of years before the end. It might have been a thousand years before the time they died out completely that such activities as publishing ended."

"Well, look where I found it; in a closet in a cellar. Tossed in there and

forgotten, and then ignored when they were stripping the building. Things like that happen."

Penrose had picked up the title page and was looking at it.

"I don't think there's any doubt about this being a magazine, at all." He looked again at the title, his lips moving silently. "*Mastharnorvod Tadavas Sornhulva*. Wonder what it means. But you're right about the date—*Doma* seems to be the name of a month. Yes, you have a word, Dr. Dane."

Sid Chamberlain, seeing that something unusual was going on, had come over from the table at which he was working. After examining the title page and some of the inside pages, he began whispering into the stenophone he had taken from his belt.

"Don't try to blow this up to anything big, Sid," she cautioned. "All we have is the name of a month, and Lord only knows how long it'll be till we even find out which month it was."

"Well, it's a start, isn't it?" Penrose argued. "Grotefend only had the word for 'king' when he started reading Persian cuneiform."

"But I don't have the word for month; just the name of a month. Everybody knew the names of the Persian kings, long before Grotefend."

"That's not the story," Chamberlain said. "What the public back on Terra will be interested in is finding out that the Martians published magazines, just like we do. Something familiar; make the Martians seem more real. More human."

Three men had come in, and were removing their masks and helmets and oxy-tanks, and peeling out of their quilted coveralls. Two were Space Force lieutenants; the third was a youngish civilian with close-cropped blond hair, in a checked woolen shirt. Tony Lattimer and his helpers.

"Don't tell me Martha finally got something out of that stuff?" he asked, approaching the table. He might have been commenting on the antics of the village half-wit, from his tone.

"Yes; the name of one of the Martian months." Hubert Penrose went on to explain, showing the photostat.

Tony Lattimer took it, glanced at it, and dropped it on the table.

"Sounds plausible, of course, but just an assumption. That word may not be

the name of a month, at all—could mean 'published' or 'authorized' or 'copyrighted' or anything like that. Fact is, I don't think it's more than a wild guess that that thing's anything like a periodical." He dismissed the subject and turned to Penrose. "I picked out the next building to enter; that tall one with the conical thing on top. It ought to be in pretty good shape inside; the conical top wouldn't allow dust to accumulate, and from the outside nothing seems to be caved in or crushed. Ground level's higher than the other one, about the seventh floor. I found a good place and drilled for the shots; tomorrow I'll blast a hole in it, and if you can spare some people to help, we can start exploring it right away."

"Yes, of course, Dr. Lattimer. I can spare about a dozen, and I suppose you can find a few civilian volunteers," Penrose told him. "What will you need in the way of equipment?"

"Oh, about six demolition-packets; they can all be shot together. And the usual thing in the way of lights, and breaking and digging tools, and climbing equipment in case we run into broken or doubtful stairways. We'll divide into two parties. Nothing ought to be entered for the first time without a qualified archaeologist along. Three parties, if Martha can tear herself away from this catalogue of systematized incomprehensibilities she's making long enough to do some real work."

She felt her chest tighten and her face become stiff. She was pressing her lips together to lock in a furious retort when Hubert Penrose answered for her.

"Dr. Dane's been doing as much work, and as important work, as you have," he said brusquely. "More important work, I'd be inclined to say."

Von Ohlmhorst was visibly distressed; he glanced once toward Sid Chamberlain, then looked hastily away from him. Afraid of a story of dissension among archaeologists getting out.

"Working out a system of pronunciation by which the Martian language could be transliterated was a most important contribution," he said. "And Martha did that almost unassisted."

"Unassisted by Dr. Lattimer, anyway," Penrose added. "Captain Field and Lieutenant Koremitsu did some work, and I helped out a little, but nine-tenths of it she did herself."

"Purely arbitrary," Lattimer disdained. "Why, we don't even know that the

Martians could make the same kind of vocal sounds we do."

"Oh, yes, we do," Ivan Fitzgerald contradicted, safe on his own ground. "I haven't seen any actual Martian skulls—these people seem to have been very tidy about disposing of their dead—but from statues and busts and pictures I've seen. I'd say that their vocal organs were identical with our own."

"Well, grant that. And grant that it's going to be impressive to rattle off the names of Martian notables whose statues we find, and that if we're ever able to attribute any placenames, they'll sound a lot better than this horse-doctors' Latin the old astronomers splashed all over the map of Mars," Lattimer said. "What I object to is her wasting time on this stuff, of which nobody will ever be able to read a word if she fiddles around with those lists till there's another hundred feet of loess on this city, when there's so much real work to be done and we're as shorthanded as we are."

That was the first time that had come out in just so many words. She was glad Lattimer had said it and not Selim von Ohlmhorst.

"What you mean," she retorted, "is that it doesn't have the publicity value that digging up statues has."

For an instant, she could see that the shot had scored. Then Lattimer, with a side glance at Chamberlain, answered:

"What I mean is that you're trying to find something that any archaeologist, yourself included, should know doesn't exist. I don't object to your gambling your professional reputation and making a laughing stock of yourself; what I object to is that the blunders of one archaeologist discredit the whole subject in the eyes of the public."

That seemed to be what worried Lattimer most. She was framing a reply when the communication-outlet whistled shrilly, and then squawked: "Cocktail time! One hour to dinner; cocktails in the library, Hut Four!"

The library, which was also lounge, recreation room, and general gathering-place, was already crowded; most of the crowd was at the long table topped with sheets of glasslike plastic that had been wall panels out of one of the ruined buildings. She poured herself what passed, here, for a martini, and carried it over to where Selim von Ohlmhorst was sitting alone.

For a while, they talked about the building they had just finished exploring,

then drifted into reminiscences of their work on Terra—von Ohlmhorst's in Asia Minor, with the Hittite Empire, and hers in Pakistan, excavating the cities of the Harappa Civilization. They finished their drinks—the ingredients were plentiful; alcohol and flavoring extracts synthesized from Martian vegetation—and von Ohlmhorst took the two glasses to the table for refills.

"You know, Martha," he said, when he returned, "Tony was right about one thing. You are gambling your professional standing and reputation. It's against all archaeological experience that a language so completely dead as this one could be deciphered. There was a continuity between all the other ancient languages—by knowing Greek, Champollion learned to read Egyptian; by knowing Egyptian, Hittite was learned. That's why you and your colleagues have never been able to translate the Harappa hieroglyphics; no such continuity exists there. If you insist that this utterly dead language can be read, your reputation will suffer for it."

"I heard Colonel Penrose say, once, that an officer who's afraid to risk his military reputation seldom makes much of a reputation. It's the same with us. If we really want to find things out, we have to risk making mistakes. And I'm a lot more interested in finding things out than I am in my reputation."

She glanced across the room, to where Tony Lattimer was sitting with Gloria Standish, talking earnestly, while Gloria sipped one of the counterfeit martinis and listened. Gloria was the leading contender for the title of Miss Mars, 1996, if you liked big bosomy blondes, but Tony would have been just as attentive to her if she'd looked like the Wicked Witch in "The Wizard of Oz." because Gloria was the Pan-Federation Telecast System commentator with the expedition.

"I know you are," the old Turco-German was saying. "That's why, when they asked me to name another archaeologist for this expedition, I named you."

He hadn't named Tony Lattimer; Lattimer had been pushed onto the expedition by his university. There'd been a lot of high-level string-pulling to that; she wished she knew the whole story. She'd managed to keep clear of universities and university politics; all her digs had been sponsored by non-academic foundations or art museums.

"You have an excellent standing: much better than my own, at your age. That's why it disturbs me to see you jeopardizing it by this insistence that the

Martian language can be translated. I can't, really, see how you can hope to succeed."

She shrugged and drank some more of her cocktail, then lit another cigarette. It was getting tiresome to try to verbalize something she only felt.

"Neither do I, now, but I will. Maybe I'll find something like the picture-books Sachiko was talking about. A child's primer, maybe; surely they had things like that. And if I don't. I'll find something else. We've only been here six months. I can wait the rest of my life, if I have to, but I'll do it sometime."

"I can't wait so long," von Ohlmhorst said. "The rest of my life will only be a few years, and when the *Schiaparelli* orbits in, I'll be going back to Terra on the *Cyrano*."

"I wish you wouldn't. This is a whole new world of archaeology. Literally."

"Yes." He finished the cocktail and looked at his pipe as though wondering whether to re-light it so soon before dinner, then put it in his pocket. "A whole new world—but I've grown old, and it isn't for me. I've spent my life studying the Hittites. I can speak the Hittite language, though maybe King Muwatallis wouldn't be able to understand my modern Turkish accent. But the things I'd have to learn here—chemistry, physics, engineering, how to run analytic tests on steel girders and beryllo-silver alloys and plastics and silicones. I'm more at home with a civilization that rode in chariots and fought with swords and was just learning how to work iron. Mars is for young people. This expedition is a cadre of leadership—not only the Space Force people, who'll be the commanders of the main expedition, but us scientists, too. And I'm just an old cavalry general who can't learn to command tanks and aircraft. You'll have time to learn about Mars. I won't."

His reputation as the dean of Hittitologists was solid and secure, too, she added mentally. Then she felt ashamed of the thought. He wasn't to be classed with Tony Lattimer.

"All I came for was to get the work started," he was continuing. "The Federation Government felt that an old hand should do that. Well, it's started, now; you and Tony and whoever come out on the *Schiaparelli* must carry it on. You said it, yourself; you have a whole new world. This is only one city, of the last Martian civilization. Behind this, you have the Late Upland Culture, and the Canal Builders, and all the civilizations and races and empires before them,

clear back to the Martian Stone Age." He hesitated for a moment. "You have no idea what all you have to learn, Martha. This isn't the time to start specializing too narrowly."

They all got out of the truck and stretched their legs and looked up the road to the tall building with the queer conical cap askew on its top. The four little figures that had been busy against its wall climbed into the jeep and started back slowly, the smallest of them, Sachiko Koremitsu, paying out an electric cable behind. When it pulled up beside the truck, they climbed out; Sachiko attached the free end of the cable to a nuclear-electric battery. At once, dirty gray smoke and orange dust puffed out from the wall of the building, and, a second later, the multiple explosion banged.

She and Tony Lattimer and Major Lindemann climbed onto the truck, leaving the jeep stand by the road. When they reached the building, a satisfyingly wide breach had been blown in the wall. Lattimer had placed his shots between two of the windows; they were both blown out along with the wall between, and lay unbroken on the ground. Martha remembered the first building they had entered. A Space Force officer had picked up a stone and thrown it at one of the windows, thinking that would be all they'd need to do. It had bounced back. He had drawn his pistol—they'd all carried guns, then, on the principle that what they didn't know about Mars might easily hurt them—and fired four shots. The bullets had ricocheted, screaming thinly; there were four coppery smears of jacket-metal on the window, and a little surface spalling. Somebody tried a rifle; the 4000-f.s. bullet had cracked the glasslike pane without penetrating. An oxyacetylene torch had taken an hour to cut the window out; the lab crew, aboard the ship, were still trying to find out just what the stuff was.

Tony Lattimer had gone forward and was sweeping his flashlight back and forth, swearing petulantly, his voice harshened and amplified by his helmet-speaker.

"I thought I was blasting into a hallway; this lets us into a room. Careful; there's about a two-foot drop to the floor, and a lot of rubble from the blast just inside."

He stepped down through the breach; the others began dragging equipment

out of the trucks—shovels and picks and crowbars and sledges, portable floodlights, cameras, sketching materials, an extension ladder, even Alpinists' ropes and crampons and pickaxes. Hubert Penrose was shouldering something that looked like a surrealist machine gun but which was really a nuclear-electric jack-hammer. Martha selected one of the spike-shod mountaineer's ice axes, with which she could dig or chop or poke or pry or help herself over rough footing.

The windows, grimed and crusted with fifty millennia of dust, filtered in a dim twilight; even the breach in the wall, in the morning shade, lighted only a small patch of floor. Somebody snapped on a floodlight, aiming it at the ceiling. The big room was empty and bare; dust lay thick on the floor and reddened the once-white walls. It could have been a large office, but there was nothing left in it to indicate its use.

"This one's been stripped up to the seventh floor!" Lattimer exclaimed. "Street level'll be cleaned out, completely."

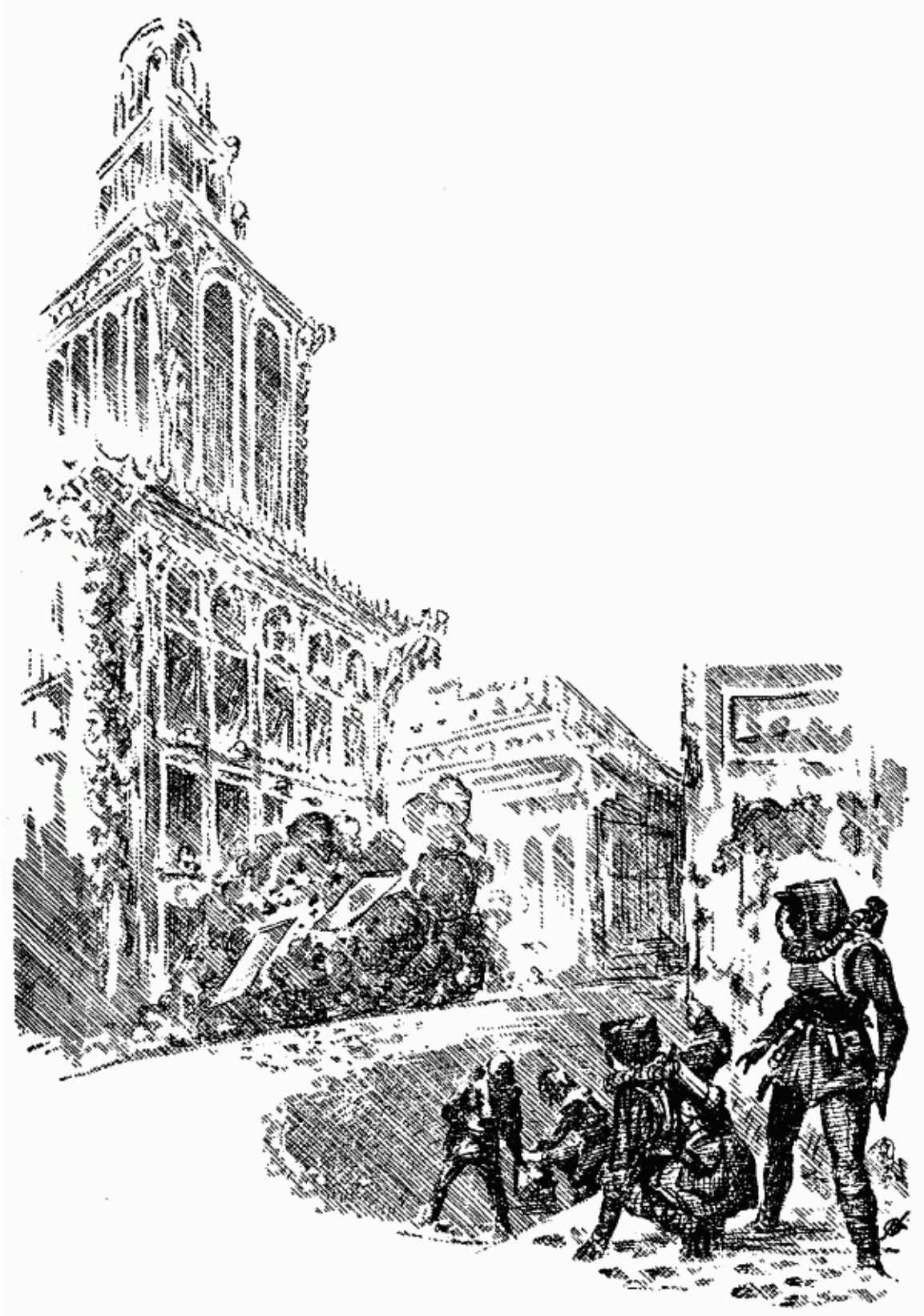
"Do for living quarters and shops, then," Lindemann said. "Added to the others, this'll take care of everybody on the *Schiaparelli*."

"Seem to have been a lot of electric or electronic apparatus over along this wall," one of the Space Force officers commented. "Ten or twelve electric outlets." He brushed the dusty wall with his glove, then scraped on the floor with his foot. "I can see where things were pried loose."

The door, one of the double sliding things the Martians had used, was closed. Selim von Ohlmhorst tried it, but it was stuck fast. The metal latch-parts had frozen together, molecule bonding itself to molecule, since the door had last been closed. Hubert Penrose came over with the jack-hammer, fitting a spear-point chisel into place. He set the chisel in the joint between the doors, braced the hammer against his hip, and squeezed the trigger-switch. The hammer banged briefly like the weapon it resembled, and the doors popped a few inches apart, then stuck. Enough dust had worked into the recesses into which it was supposed to slide to block it on both sides.

That was old stuff; they ran into that every time they had to force a door, and they were prepared for it. Somebody went outside and brought in a power-jack and finally one of the doors inched back to the door jamb. That was enough

to get the lights and equipment through: they all passed from the room to the hallway beyond. About half the other doors were open; each had a number and a single word, *Darfhulva*, over it.



One of the civilian volunteers, a woman professor of natural ecology from Penn State University, was looking up and down the hall.

"You know," she said, "I feel at home here. I think this was a college of some sort, and these were classrooms. That word, up there; that was the subject taught, or the department. And those electronic devices, all where the class would face them; audio-visual teaching aids."

"A twenty-five-story university?" Lattimer scoffed. "Why, a building like this would handle thirty thousand students."

"Maybe there were that many. This was a big city, in its prime," Martha said, moved chiefly by a desire to oppose Lattimer.

"Yes, but think of the snafu in the halls, every time they changed classes. It'd take half an hour to get everybody back and forth from one floor to another." He turned to von Ohlmhorst. "I'm going up above this floor. This place has been looted clean up to here, but there's a chance there may be something above," he said.

"I'll stay on this floor, at present," the Turco-German replied. "There will be much coming and going, and dragging things in and out. We should get this completely examined and recorded first. Then Major Lindemann's people can do their worst, here."

"Well, if nobody else wants it, I'll take the downstairs," Martha said.

"I'll go along with you," Hubert Penrose told her. "If the lower floors have no archaeological value, we'll turn them into living quarters. I like this building: it'll give everybody room to keep out from under everybody else's feet." He looked down the hall. "We ought to find escalators at the middle."

The hallway, too, was thick underfoot with dust. Most of the open rooms were empty, but a few contained furniture, including small seat-desks. The original proponent of the university theory pointed these out as just what might be found in classrooms. There were escalators, up and down, on either side of the hall, and more on the intersecting passage to the right.

"That's how they handled the students, between classes," Martha commented. "And I'll bet there are more ahead, there."

They came to a stop where the hallway ended at a great square central hall. There were elevators, there, on two of the sides, and four escalators, still usable as stairways. But it was the walls, and the paintings on them, that brought them up short and staring.

They were clouded with dirt—she was trying to imagine what they must have looked like originally, and at the same time estimating the labor that would be involved in cleaning them—but they were still distinguishable, as was the word, *Darfhulva*, in golden letters above each of the four sides. It was a moment before she realized, from the murals, that she had at last found a meaningful Martian word. They were a vast historical panorama, clockwise around the room. A group of skin-clad savages squatting around a fire. Hunters with bows and spears, carrying a carcass of an animal slightly like a pig. Nomads riding long-legged, graceful mounts like hornless deer. Peasants sowing and reaping; mud-walled hut villages, and cities; processions of priests and warriors; battles with swords and bows, and with cannon and muskets; galleys, and ships with sails, and ships without visible means of propulsion, and aircraft. Changing costumes and weapons and machines and styles of architecture. A richly fertile landscape, gradually merging into barren deserts and bushlands—the time of the great planet-wide drought. The Canal Builders—men with machines recognizable as steam-shovels and derricks, digging and quarrying and driving across the empty plains with aqueducts. More cities—seaports on the shrinking oceans; dwindling, half-deserted cities; an abandoned city, with four tiny humanoid figures and a thing like a combat-car in the middle of a brush-grown plaza, they and their vehicle dwarfed by the huge lifeless buildings around them. She had not the least doubt; *Darfhulva* was History.

"Wonderful!" von Ohlmhorst was saying. "The entire history of this race. Why, if the painter depicted appropriate costumes and weapons and machines for each period, and got the architecture right, we can break the history of this planet into eras and periods and civilizations."

"You can assume they're authentic. The faculty of this university would insist on authenticity in the *Darfhulva*—History—Department," she said.

"Yes! *Darfhulva*—History! And your magazine was a journal of *Sornhulva*!" Penrose exclaimed. "You have a word, Martha!" It took her an instant to realize that he had called her by her first name, and not Dr. Dane. She wasn't sure if that weren't a bigger triumph than learning a word of the Martian language. Or a more auspicious start. "Alone, I suppose that *hulva* means something like science or knowledge, or study; combined, it would be equivalent to our 'ology. And *darf* would mean something like past, or old times, or human events, or

chronicles."

"That gives you three words, Martha!" Sachiko jubilated. "You did it."

"Let's don't go too fast," Lattimer said, for once not derisively. "I'll admit that *darfhulva* is the Martian word for history as a subject of study; I'll admit that *hulva* is the general word and *darf* modifies it and tells us which subject is meant. But as for assigning specific meanings, we can't do that because we don't know just how the Martians thought, scientifically or otherwise."

He stopped short, startled by the blue-white light that blazed as Sid Chamberlain's Kliegettes went on. When the whirring of the camera stopped, it was Chamberlain who was speaking:

"This is the biggest thing yet; the whole history of Mars, stone age to the end, all on four walls. I'm taking this with the fast shutter, but we'll telecast it in slow motion, from the beginning to the end. Tony, I want you to do the voice for it—running commentary, interpretation of each scene as it's shown. Would you do that?"

Would he do that! Martha thought. If he had a tail, he'd be wagging it at the very thought.

"Well, there ought to be more murals on the other floors," she said. "Who wants to come downstairs with us?"

Sachiko did; immediately. Ivan Fitzgerald volunteered. Sid decided to go upstairs with Tony Lattimer, and Gloria Standish decided to go upstairs, too. Most of the party would remain on the seventh floor, to help Selim von Ohlmhorst get it finished. After poking tentatively at the escalator with the spike of her ice axe, Martha led the way downward.

The sixth floor was *Darfhulva*, too; military and technological history, from the character of the murals. They looked around the central hall, and went down to the fifth; it was like the floors above except that the big quadrangle was stacked with dusty furniture and boxes. Ivan Fitzgerald, who was carrying the floodlight, swung it slowly around. Here the murals were of heroic-sized Martians, so human in appearance as to seem members of her own race, each holding some object—a book, or a test tube, or some bit of scientific apparatus, and behind them were scenes of laboratories and factories, flame and smoke, lightning-flashes. The word at the top of each of the four walls was one with

which she was already familiar—*Sornhulva*.

"Hey, Martha; there's that word," Ivan Fitzgerald exclaimed. "The one in the title of your magazine." He looked at the paintings. "Chemistry, or physics."

"Both." Hubert Penrose considered. "I don't think the Martians made any sharp distinction between them. See, the old fellow with the scraggly whiskers must be the inventor of the spectroscope; he has one in his hands, and he has a rainbow behind him. And the woman in the blue smock, beside him, worked in organic chemistry; see the diagrams of long-chain molecules behind her. What word would convey the idea of chemistry and physics taken as one subject?"

"*Sornhulva*," Sachiko suggested. "If *hulva's* something like science, "*sorn*" must mean matter, or substance, or physical object. You were right, all along, Martha. A civilization like this would certainly leave something like this, that would be self-explanatory."

"This'll wipe a little more of that superior grin off Tony Lattimer's face," Fitzgerald was saying, as they went down the motionless escalator to the floor below. "Tony wants to be a big shot. When you want to be a big shot, you can't bear the possibility of anybody else being a bigger big shot, and whoever makes a start on reading this language will be the biggest big shot archaeology ever saw."

That was true. She hadn't thought of it, in that way, before, and now she tried not to think about it. She didn't want to be a big shot. She wanted to be able to read the Martian language, and find things out about the Martians.

Two escalators down, they came out on a mezzanine around a wide central hall on the street level, the floor forty feet below them and the ceiling thirty feet above. Their lights picked out object after object below—a huge group of sculptured figures in the middle; some kind of a motor vehicle jacked up on trestles for repairs; things that looked like machine-guns and auto-cannon; long tables, tops littered with a dust-covered miscellany; machinery; boxes and crates and containers.

They made their way down and walked among the clutter, missing a hundred things for every one they saw, until they found an escalator to the basement. There were three basements, one under another, until at last they stood at the bottom of the last escalator, on a bare concrete floor, swinging the

portable floodlight over stacks of boxes and barrels and drums, and heaps of powdery dust. The boxes were plastic—nobody had ever found anything made of wood in the city—and the barrels and drums were of metal or glass or some glasslike substance. They were outwardly intact. The powdery heaps might have been anything organic, or anything containing fluid. Down here, where wind and dust could not reach, evaporation had been the only force of destruction after the minute life that caused putrefaction had vanished.

They found refrigeration rooms, too, and using Martha's ice axe and the pistollike vibratool Sachiko carried on her belt, they pounded and pried one open, to find dessicated piles of what had been vegetables, and leathery chunks of meat. Samples of that stuff, rocketed up to the ship, would give a reliable estimate, by radio-carbon dating, of how long ago this building had been occupied. The refrigeration unit, radically different from anything their own culture had produced, had been electrically powered. Sachiko and Penrose, poking into it, found the switches still on; the machine had only ceased to function when the power-source, whatever that had been, had failed.

The middle basement had also been used, at least toward the end, for storage; it was cut in half by a partition pierced by but one door. They took half an hour to force this, and were on the point of sending above for heavy equipment when it yielded enough for them to squeeze through. Fitzgerald, in the lead with the light, stopped short, looked around, and then gave a groan that came through his helmet-speaker like a foghorn.

"Oh, no! *No!*"

"What's the matter, Ivan?" Sachiko, entering behind him, asked anxiously.

He stepped aside. "Look at it, Sachi! Are we going to have to do all that?"

Martha crowded through behind her friend and looked around, then stood motionless, dizzy with excitement. Books. Case on case of books, half an acre of cases, fifteen feet to the ceiling. Fitzgerald, and Penrose, who had pushed in behind her, were talking in rapid excitement; she only heard the sound of their voices, not their words. This must be the main stacks of the university library—the entire literature of the vanished race of Mars. In the center, down an aisle between the cases, she could see the hollow square of the librarians' desk, and stairs and a dumb-waiter to the floor above.

She realized that she was walking forward, with the others, toward this.

Sachiko was saying: "I'm the lightest; let me go first." She must be talking about the spidery metal stairs.

"I'd say they were safe," Penrose answered. "The trouble we've had with doors around here shows that the metal hasn't deteriorated."

In the end, the Japanese girl led the way, more catlike than ever in her caution. The stairs were quite sound, in spite of their fragile appearance, and they all followed her. The floor above was a duplicate of the room they had entered, and seemed to contain about as many books. Rather than waste time forcing the door here, they returned to the middle basement and came up by the escalator down which they had originally descended.

The upper basement contained kitchens—electric stoves, some with pots and pans still on them—and a big room that must have been, originally, the students' dining room, though when last used it had been a workshop. As they expected, the library reading room was on the street-level floor, directly above the stacks. It seemed to have been converted into a sort of common living room for the building's last occupants. An adjoining auditorium had been made into a chemical works; there were vats and distillation apparatus, and a metal fractionating tower that extended through a hole knocked in the ceiling seventy feet above. A good deal of plastic furniture of the sort they had been finding everywhere in the city was stacked about, some of it broken up, apparently for reprocessing. The other rooms on the street floor seemed also to have been devoted to manufacturing and repair work; a considerable industry, along a number of lines, must have been carried on here for a long time after the university had ceased to function as such.

On the second floor, they found a museum; many of the exhibits remained, tantalizingly half-visible in grimed glass cases. There had been administrative offices there, too. The doors of most of them were closed, and they did not waste time trying to force them, but those that were open had been turned into living quarters. They made notes, and rough floor plans, to guide them in future more thorough examination; it was almost noon before they had worked their way back to the seventh floor.

Selim von Ohlmhorst was in a room on the north side of the building, sketching the position of things before examining them and collecting them for removal. He had the floor checkerboarded with a grid of chalked lines, each

numbered.

"We have everything on this floor photographed," he said. "I have three gangs—all the floodlights I have—sketching and making measurements. At the rate we're going, with time out for lunch, we'll be finished by the middle of the afternoon."

"You've been working fast. Evidently you aren't being high-church about a 'qualified archaeologist' entering rooms first," Penrose commented.

"Ach, childishness!" the old man exclaimed impatiently. "These officers of yours aren't fools. All of them have been to Intelligence School and Criminal Investigation School. Some of the most careful amateur archaeologists I ever knew were retired soldiers or policemen. But there isn't much work to be done. Most of the rooms are either empty or like this one—a few bits of furniture and broken trash and scraps of paper. Did you find anything down on the lower floors?"

"Well, yes," Penrose said, a hint of mirth in his voice. "What would you say, Martha?"

She started to tell Selim. The others, unable to restrain their excitement, broke in with interruptions. Von Ohlmhorst was staring in incredulous amazement.

"But this floor was looted almost clean, and the buildings we've entered before were all looted from the street level up," he said, at length.

"The people who looted this one lived here," Penrose replied. "They had electric power to the last; we found refrigerators full of food, and stoves with the dinner still on them. They must have used the elevators to haul things down from the upper floor. The whole first floor was converted into workshops and laboratories. I think that this place must have been something like a monastery in the Dark Ages in Europe, or what such a monastery would have been like if the Dark Ages had followed the fall of a highly developed scientific civilization. For one thing, we found a lot of machine guns and light auto-cannon on the street level, and all the doors were barricaded. The people here were trying to keep a civilization running after the rest of the planet had gone back to barbarism; I suppose they'd have to fight off raids by the barbarians now and then."

"You're not going to insist on making this building into expedition quarters,

I hope, colonel?" von Ohlmhorst asked anxiously.

"Oh, no! This place is an archaeological treasure-house. More than that; from what I saw, our technicians can learn a lot, here. But you'd better get this floor cleaned up as soon as you can, though. I'll have the subsurface part, from the sixth floor down, airsealed. Then we'll put in oxygen generators and power units, and get a couple of elevators into service. For the floors above, we can use temporary airsealing floor by floor, and portable equipment; when we have things atmosphered and lighted and heated, you and Martha and Tony Lattimer can go to work systematically and in comfort, and I'll give you all the help I can spare from the other work. This is one of the biggest things we've found yet."

Tony Lattimer and his companions came down to the seventh floor a little later.

"I don't get this, at all," he began, as soon as he joined them. "This building wasn't stripped the way the others were. Always, the procedure seems to have been to strip from the bottom up, but they seem to have stripped the top floors first, here. All but the very top. I found out what that conical thing is, by the way. It's a wind-rotor, and under it there's an electric generator. This building generated its own power."

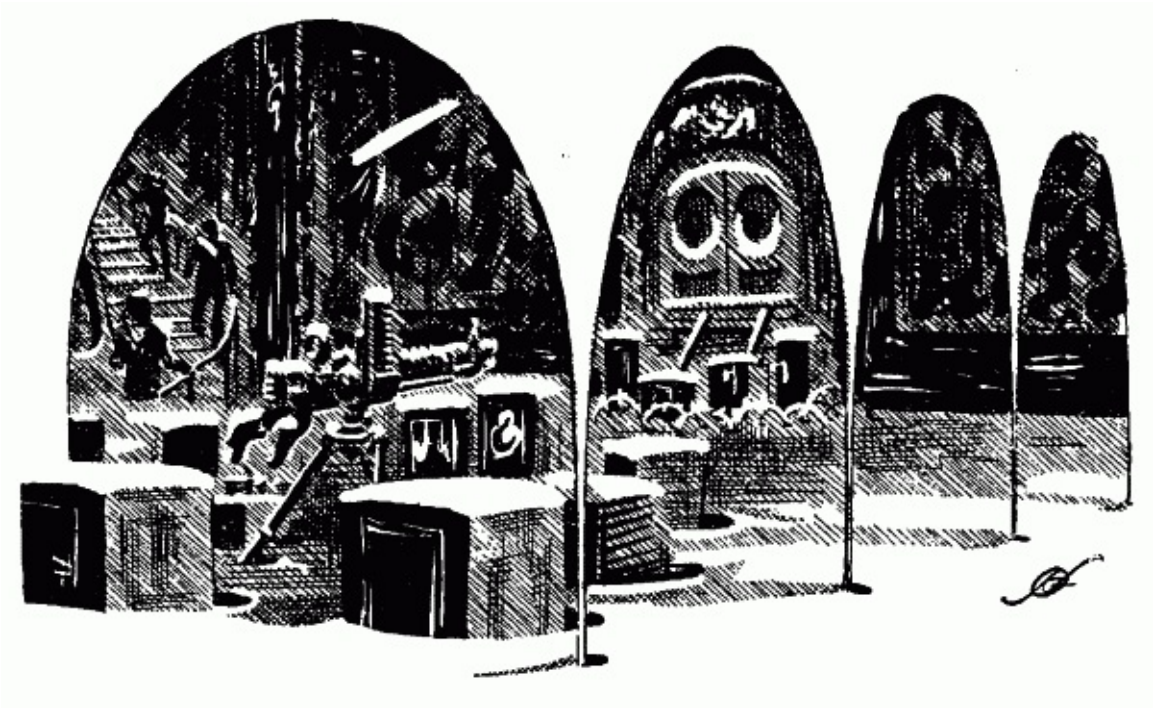
"What sort of condition are the generators in?" Penrose asked.

"Well, everything's full of dust that blew in under the rotor, of course, but it looks to be in pretty good shape. Hey, I'll bet that's it! They had power, so they used the elevators to haul stuff down. That's just what they did. Some of the floors above here don't seem to have been touched, though." He paused momentarily; back of his oxy-mask, he seemed to be grinning. "I don't know that I ought to mention this in front of Martha, but two floors above—we hit a room—it must have been the reference library for one of the departments—that had close to five hundred books in it."

The noise that interrupted him, like the squawking of a Brobdingnagian parrot, was only Ivan Fitzgerald laughing through his helmet-speaker.

Lunch at the huts was a hasty meal, with a gabble of full-mouthed and excited talking. Hubert Penrose and his chief subordinates snatched their food in a huddled consultation at one end of the table; in the afternoon, work was suspended on everything else and the fifty-odd men and women of the

expedition concentrated their efforts on the University. By the middle of the afternoon, the seventh floor had been completely examined, photographed and sketched, and the murals in the square central hall covered with protective tarpaulins, and Laurent Gicquel and his airsealing crew had moved in and were at work. It had been decided to seal the central hall at the entrances. It took the French-Canadian engineer most of the afternoon to find all the ventilation-ducts and plug them. An elevator-shaft on the north side was found reaching clear to the twenty-fifth floor; this would give access to the top of the building; another shaft, from the center, would take care of the floors below. Nobody seemed willing to trust the ancient elevators, themselves; it was the next evening before a couple of cars and the necessary machinery could be fabricated in the machine shops aboard the ship and sent down by landing-rocket. By that time, the airsealing was finished, the nuclear-electric energy-converters were in place, and the oxygen generators set up.



Martha was in the lower basement, an hour or so before lunch the day after, when a couple of Space Force officers came out of the elevator, bringing extra lights with them. She was still using oxygen-equipment; it was a moment before she realized that the newcomers had no masks, and that one of them was smoking. She took off her own helmet-speaker, throat-mike and mask and unslung her tank-pack, breathing cautiously. The air was chilly, and musty-

acrid with the odor of antiquity—the first Martian odor she had smelled—but when she lit a cigarette, the lighter flamed clear and steady and the tobacco caught and burned evenly.

The archaeologists, many of the other civilian scientists, a few of the Space Force officers and the two news-correspondents, Sid Chamberlain and Gloria Standish, moved in that evening, setting up cots in vacant rooms. They installed electric stoves and a refrigerator in the old Library Reading Room, and put in a bar and lunch counter. For a few days, the place was full of noise and activity, then, gradually, the Space Force people and all but a few of the civilians returned to their own work. There was still the business of airsealing the more habitable of the buildings already explored, and fitting them up in readiness for the arrival, in a year and a half, of the five hundred members of the main expedition. There was work to be done enlarging the landing field for the ship's rocket craft, and building new chemical-fuel tanks.

There was the work of getting the city's ancient reservoirs cleared of silt before the next spring thaw brought more water down the underground aqueducts everybody called canals in mistranslation of Schiaparelli's Italian word, though this was proving considerably easier than anticipated. The ancient Canal-Builders must have anticipated a time when their descendants would no longer be capable of maintenance work, and had prepared against it. By the day after the University had been made completely habitable, the actual work there was being done by Selim, Tony Lattimer and herself, with half a dozen Space Force officers, mostly girls, and four or five civilians, helping.

They worked up from the bottom, dividing the floor-surfaces into numbered squares, measuring and listing and sketching and photographing. They packaged samples of organic matter and sent them up to the ship for Carbon-14 dating and analysis; they opened cans and jars and bottles, and found that everything fluid in them had evaporated, through the porosity of glass and metal and plastic if there were no other way. Wherever they looked, they found evidence of activity suddenly suspended and never resumed. A vise with a bar of metal in it, half cut through and the hacksaw beside it. Pots and pans with hardened remains of food in them; a leathery cut of meat on a table, with the knife ready at hand. Toilet articles on washstands; unmade beds, the bedding

ready to crumble at a touch but still retaining the impress of the sleeper's body; papers and writing materials on desks, as though the writer had gotten up, meaning to return and finish in a fifty-thousand-year-ago moment.

It worried her. Irrationally, she began to feel that the Martians had never left this place; that they were still around her, watching disapprovingly every time she picked up something they had laid down. They haunted her dreams, now, instead of their enigmatic writing. At first, everybody who had moved into the University had taken a separate room, happy to escape the crowding and lack of privacy of the huts. After a few nights, she was glad when Gloria Standish moved in with her, and accepted the newswoman's excuse that she felt lonely without somebody to talk to before falling asleep. Sachiko Koremitsu joined them the next evening, and before going to bed, the girl officer cleaned and oiled her pistol, remarking that she was afraid some rust may have gotten into it.

The others felt it, too. Selim von Ohlmhorst developed the habit of turning quickly and looking behind him, as though trying to surprise somebody or something that was stalking him. Tony Lattimer, having a drink at the bar that had been improvised from the librarian's desk in the Reading Room, set down his glass and swore.

"You know what this place is? It's an archaeological *Marie Celeste*!" he declared. "It was occupied right up to the end—we've all seen the shifts these people used to keep a civilization going here—but what was the end? What happened to them? Where did they go?"

"You didn't expect them to be waiting out front, with a red carpet and a big banner, *Welcome Terrans*, did you, Tony?" Gloria Standish asked.

"No, of course not; they've all been dead for fifty thousand years. But if they were the last of the Martians, why haven't we found their bones, at least? Who buried them, after they were dead?" He looked at the glass, a bubble-thin goblet, found, with hundreds of others like it, in a closet above, as though debating with himself whether to have another drink. Then he voted in the affirmative and reached for the cocktail pitcher. "And every door on the old ground level is either barred or barricaded from the inside. How did they get out? And why did they leave?"

The next day, at lunch, Sachiko Koremitsu had the answer to the second question. Four or five electrical engineers had come down by rocket from the ship, and she had been spending the morning with them, in oxy-masks, at the top of the building.

"Tony, I thought you said those generators were in good shape," she began, catching sight of Lattimer. "They aren't. They're in the most unholy mess I ever saw. What happened, up there, was that the supports of the wind-rotor gave way, and weight snapped the main shaft, and smashed everything under it."

"Well, after fifty thousand years, you can expect something like that," Lattimer retorted. "When an archaeologist says something's in good shape, he doesn't necessarily mean it'll start as soon as you shove a switch in."

"You didn't notice that it happened when the power was on, did you," one of the engineers asked, nettled at Lattimer's tone. "Well, it was. Everything's burned out or shorted or fused together; I saw one busbar eight inches across melted clean in two. It's a pity we didn't find things in good shape, even archaeologically speaking. I saw a lot of interesting things, things in advance of what we're using now. But it'll take a couple of years to get everything sorted out and figure what it looked like originally."

"Did it look as though anybody'd made any attempt to fix it?" Martha asked.

Sachiko shook her head. "They must have taken one look at it and given up. I don't believe there would have been any possible way to repair anything."

"Well, that explains why they left. They needed electricity for lighting, and heating, and all their industrial equipment was electrical. They had a good life, here, with power; without it, this place wouldn't have been habitable."

"Then why did they barricade everything from the inside, and how did they get out?" Lattimer wanted to know.

"To keep other people from breaking in and looting. Last man out probably barred the last door and slid down a rope from upstairs," von Ohlmhorst suggested. "This Houdini-trick doesn't worry me too much. We'll find out eventually."

"Yes, about the time Martha starts reading Martian," Lattimer scoffed.

"That may be just when we'll find out," von Ohlmhorst replied seriously. "It wouldn't surprise me if they left something in writing when they evacuated this place."

"Are you really beginning to treat this pipe dream of hers as a serious possibility, Selim?" Lattimer demanded. "I know, it would be a wonderful thing, but wonderful things don't happen just because they're wonderful. Only because they're possible, and this isn't. Let me quote that distinguished Hittitologist, Johannes Friedrich: 'Nothing can be translated out of nothing.' Or that later but not less distinguished Hittitologist, Selim von Ohlmhorst: 'Where are you going to get your bilingual?'"

"Friedrich lived to see the Hittite language deciphered and read," von Ohlmhorst reminded him.

"Yes, when they found Hittite-Assyrian bilinguals." Lattimer measured a spoonful of coffee-powder into his cup and added hot water. "Martha, you ought to know, better than anybody, how little chance you have. You've been working for years in the Indus Valley; how many words of Harappa have you or anybody else ever been able to read?"

"We never found a university, with a half-million-volume library, at Harappa or Mohenjo-Daro."

"And, the first day we entered this building, we established meanings for several words," Selim von Ohlmhorst added.

"And you've never found another meaningful word since," Lattimer added. "And you're only sure of general meaning, not specific meaning of word-elements, and you have a dozen different interpretations for each word."

"We made a start," von Ohlmhorst maintained. "We have Grotefend's word for 'king.' But I'm going to be able to read some of those books, over there, if it takes me the rest of my life here. It probably will, anyhow."

"You mean you've changed your mind about going home on the *Cyrano*?" Martha asked. "You'll stay on here?"

The old man nodded. "I can't leave this. There's too much to discover. The old dog will have to learn a lot of new tricks, but this is where my work will be, from now on."

Lattimer was shocked. "You're nuts!" he cried. "You mean you're going to throw away everything you've accomplished in Hittitology and start all over again here on Mars? Martha, if you've talked him into this crazy decision, you're a criminal!"

"Nobody talked me into anything," von Ohlmhorst said roughly. "And as for

throwing away what I've accomplished in Hittitology, I don't know what the devil you're talking about. Everything I know about the Hittite Empire is published and available to anybody. Hittitology's like Egyptology; it's stopped being research and archaeology and become scholarship and history. And I'm not a scholar or a historian; I'm a pick-and-shovel field archaeologist—a highly skilled and specialized grave-robber and junk-picker—and there's more pick-and-shovel work on this planet than I could do in a hundred lifetimes. This is something new; I was a fool to think I could turn my back on it and go back to scribbling footnotes about Hittite kings."

"You could have anything you wanted, in Hittitology. There are a dozen universities that'd sooner have you than a winning football team. But no! You have to be the top man in Martiology, too. You can't leave that for anybody else —" Lattimer shoved his chair back and got to his feet, leaving the table with an oath that was almost a sob of exasperation.

Maybe his feelings were too much for him. Maybe he realized, as Martha did, what he had betrayed. She sat, avoiding the eyes of the others, looking at the ceiling, as embarrassed as though Lattimer had flung something dirty on the table in front of them. Tony Lattimer had, desperately, wanted Selim to go home on the *Cyrano*. Martiology was a new field; if Selim entered it, he would bring with him the reputation he had already built in Hittitology, automatically stepping into the leading role that Lattimer had coveted for himself. Ivan Fitzgerald's words echoed back to her—when you want to be a big shot, you can't bear the possibility of anybody else being a bigger big shot. His derision of her own efforts became comprehensible, too. It wasn't that he was convinced that she would never learn to read the Martian language. He had been afraid that she would.

Ivan Fitzgerald finally isolated the germ that had caused the Finchley girl's undiagnosed illness. Shortly afterward, the malady turned into a mild fever, from which she recovered. Nobody else seemed to have caught it. Fitzgerald was still trying to find out how the germ had been transmitted.

They found a globe of Mars, made when the city had been a seaport. They located the city, and learned that its name had been Kukan—or something with a similar vowel-consonant ratio. Immediately, Sid Chamberlain and Gloria

Standish began giving their telecasts a Kukan dateline, and Hubert Penrose used the name in his official reports. They also found a Martian calendar; the year had been divided into ten more or less equal months, and one of them had been Doma. Another month was Nor, and that was a part of the name of the scientific journal Martha had found.

Bill Chandler, the zoologist, had been going deeper and deeper into the old sea bottom of Syrtis. Four hundred miles from Kukan, and at fifteen thousand feet lower altitude, he shot a bird. At least, it was a something with wings and what were almost but not quite feathers, though it was more reptilian than avian in general characteristics. He and Ivan Fitzgerald skinned and mounted it, and then dissected the carcass almost tissue by tissue. About seven-eighths of its body capacity was lungs; it certainly breathed air containing at least half enough oxygen to support human life, or five times as much as the air around Kukan.

That took the center of interest away from archaeology, and started a new burst of activity. All the expedition's aircraft—four jetticopters and three wingless airdyne reconnaissance fighters—were thrown into intensified exploration of the lower sea bottoms, and the bio-science boys and girls were wild with excitement and making new discoveries on each flight.

The University was left to Selim and Martha and Tony Lattimer, the latter keeping to himself while she and the old Turco-German worked together. The civilian specialists in other fields, and the Space Force people who had been holding tape lines and making sketches and snapping cameras, were all flying to lower Syrtis to find out how much oxygen there was and what kind of life it supported.

Sometimes Sachiko dropped in; most of the time she was busy helping Ivan Fitzgerald dissect specimens. They had four or five species of what might loosely be called birds, and something that could easily be classed as a reptile, and a carnivorous mammal the size of a cat with birdlike claws, and a herbivore almost identical with the piglike thing in the big *Darfhulva* mural, and another like a gazelle with a single horn in the middle of its forehead.

The high point came when one party, at thirty thousand feet below the level of Kukan, found breathable air. One of them had a mild attack of *sorroche* and had to be flown back for treatment in a hurry, but the others showed no ill

effects.

The daily newscasts from Terra showed a corresponding shift in interest at home. The discovery of the University had focused attention on the dead past of Mars; now the public was interested in Mars as a possible home for humanity. It was Tony Lattimer who brought archaeology back into the activities of the expedition and the news at home.

Martha and Selim were working in the museum on the second floor, scrubbing the grime from the glass cases, noting contents, and grease-penciling numbers; Lattimer and a couple of Space Force officers were going through what had been the administrative offices on the other side. It was one of these, a young second lieutenant, who came hurrying in from the mezzanine, almost bursting with excitement.

"Hey, Martha! Dr. von Ohlmhorst!" he was shouting. "Where are you? Tony's found the Martians!"

Selim dropped his rag back in the bucket; she laid her clipboard on top of the case beside her.

"Where?" they asked together.

"Over on the north side." The lieutenant took hold of himself and spoke more deliberately. "Little room, back of one of the old faculty offices—conference room. It was locked from the inside, and we had to burn it down with a torch. That's where they are. Eighteen of them, around a long table—"

Gloria Standish, who had dropped in for lunch, was on the mezzanine, fairly screaming into a radiophone extension:

" ... Dozen and a half of them! Well, of course they're dead. What a question! They look like skeletons covered with leather. No, I do not know what they died of. Well, forget it; I don't care if Bill Chandler's found a three-headed hippopotamus. Sid, don't you get it? We've found the *Martians*!"

She slammed the phone back on its hook, rushing away ahead of them.

Martha remembered the closed door; on the first survey, they hadn't attempted opening it. Now it was burned away at both sides and lay, still hot along the edges, on the floor of the big office room in front. A floodlight was on in the room inside, and Lattimer was going around looking at things while a Space Force officer stood by the door. The center of the room was filled by a

long table; in armchairs around it sat the eighteen men and women who had occupied the room for the last fifty millennia. There were bottles and glasses on the table in front of them, and, had she seen them in a dimmer light, she would have thought that they were merely dozing over their drinks. One had a knee hooked over his chair-arm and was curled in foetuslike sleep. Another had fallen forward onto the table, arms extended, the emerald set of a ring twinkling dully on one finger. Skeletons covered with leather, Gloria Standish had called them, and so they were—faces like skulls, arms and legs like sticks, the flesh shrunken onto the bones under it.

"Isn't this something!" Lattimer was exulting. "Mass suicide, that's what it was. Notice what's in the corners?"

Braziers, made of perforated two-gallon-odd metal cans, the white walls smudged with smoke above them. Von Ohlmhorst had noticed them at once, and was poking into one of them with his flashlight.

"Yes; charcoal. I noticed a quantity of it around a couple of hand-forges in the shop on the first floor. That's why you had so much trouble breaking in; they'd sealed the room on the inside." He straightened and went around the room, until he found a ventilator, and peered into it. "Stuffed with rags. They must have been all that were left, here. Their power was gone, and they were old and tired, and all around them their world was dying. So they just came in here and lit the charcoal, and sat drinking together till they all fell asleep. Well, we know what became of them, now, anyhow."

Sid and Gloria made the most of it. The Terran public wanted to hear about Martians, and if live Martians couldn't be found, a room full of dead ones was the next best thing. Maybe an even better thing; it had been only sixty-odd years since the Orson Welles invasion-scare. Tony Lattimer, the discoverer, was beginning to cash in on his attentions to Gloria and his ingratiation with Sid; he was always either making voice-and-image talks for telecast or listening to the news from the home planet. Without question, he had become, overnight, the most widely known archaeologist in history.

"Not that I'm interested in all this, for myself," he disclaimed, after listening to the telecast from Terra two days after his discovery. "But this is going to be a big thing for Martian archaeology. Bring it to the public attention; dramatize it. Selim, can you remember when Lord Carnarvon and Howard

Carter found the tomb of Tutankhamen?"

"In 1923? I was two years old, then," von Ohlmhorst chuckled. "I really don't know how much that publicity ever did for Egyptology. Oh, the museums did devote more space to Egyptian exhibits, and after a museum department head gets a few extra showcases, you know how hard it is to make him give them up. And, for a while, it was easier to get financial support for new excavations. But I don't know how much good all this public excitement really does, in the long run."

"Well, I think one of us should go back on the *Cyrano*, when the *Schiaparelli* orbits in," Lattimer said. "I'd hoped it would be you; your voice would carry the most weight. But I think it's important that one of us go back, to present the story of our work, and what we have accomplished and what we hope to accomplish, to the public and to the universities and the learned societies, and to the Federation Government. There will be a great deal of work that will have to be done. We must not allow the other scientific fields and the so-called practical interests to monopolize public and academic support. So, I believe I shall go back at least for a while, and see what I can do—"

Lectures. The organization of a Society of Martian Archaeology, with Anthony Lattimer, Ph.D., the logical candidate for the chair. Degrees, honors; the deference of the learned, and the adulation of the lay public. Positions, with impressive titles and salaries. Sweet are the uses of publicity.

She crushed out her cigarette and got to her feet. "Well, I still have the final lists of what we found in *Halvhulva*—Biology—department to check over. I'm starting on Sornhulva tomorrow, and I want that stuff in shape for expert evaluation."

That was the sort of thing Tony Lattimer wanted to get away from, the detail-work and the drudgery. Let the infantry do the slogging through the mud; the brass-hats got the medals.

She was halfway through the fifth floor, a week later, and was having midday lunch in the reading room on the first floor when Hubert Penrose came over and sat down beside her, asking her what she was doing. She told him.

"I wonder if you could find me a couple of men, for an hour or so," she added. "I'm stopped by a couple of jammed doors at the central hall. Lecture

room and library, if the layout of that floor's anything like the ones below it."

"Yes. I'm a pretty fair door-buster, myself." He looked around the room. "There's Jeff Miles; he isn't doing much of anything. And we'll put Sid Chamberlain to work, for a change, too. The four of us ought to get your doors open." He called to Chamberlain, who was carrying his tray over to the dish washer. "Oh, Sid; you doing anything for the next hour or so?"

"I was going up to the fourth floor, to see what Tony's doing."

"Forget it. Tony's bagged his season limit of Martians. I'm going to help Martha bust in a couple of doors; we'll probably find a whole cemetery full of Martians."

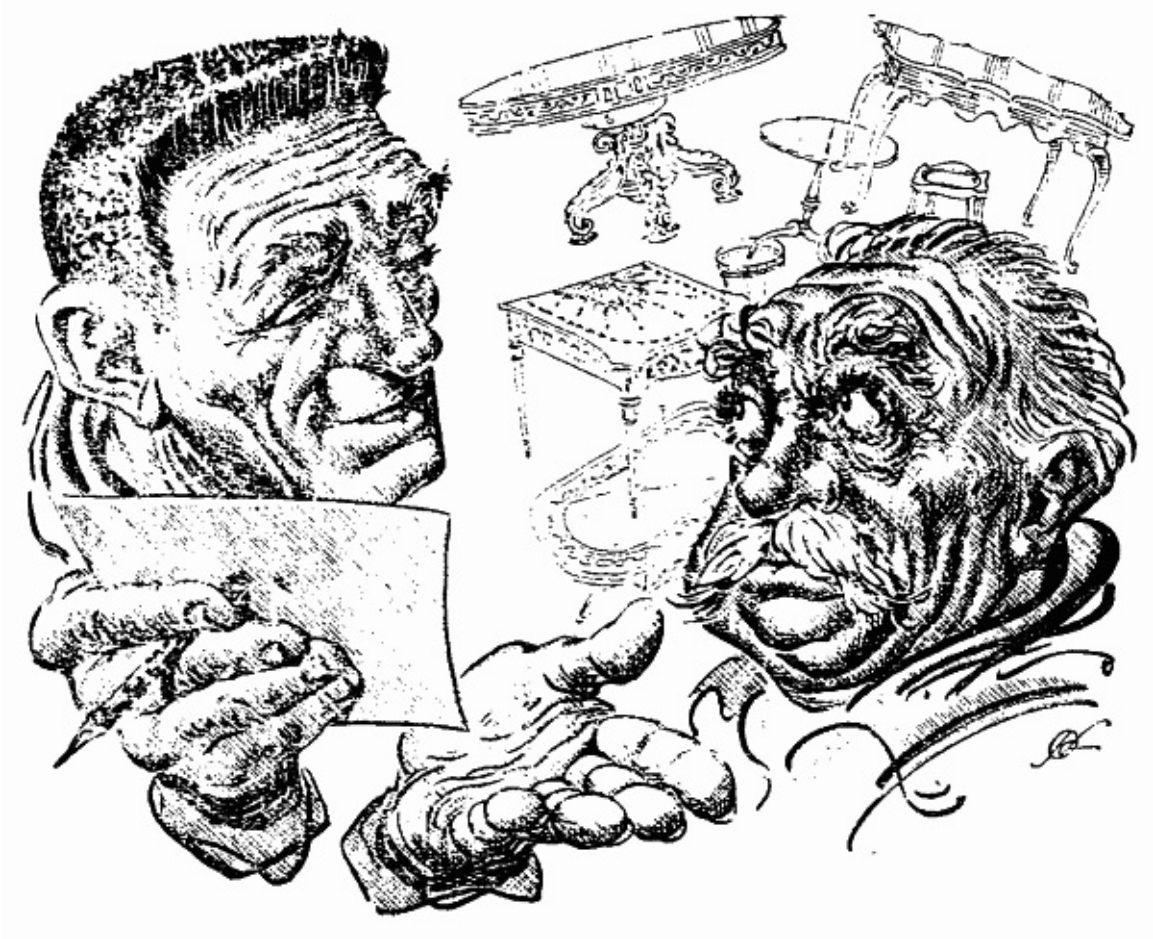
Chamberlain shrugged. "Why not. A jammed door can have anything back of it, and I know what Tony's doing—just routine stuff."

Jeff Miles, the Space Force captain, came over, accompanied by one of the lab-crew from the ship who had come down on the rocket the day before.

"This ought to be up your alley, Mort," he was saying to his companion. "Chemistry and physics department. Want to come along?"

The lab man, Mort Tranter, was willing. Seeing the sights was what he'd come down from the ship for. She finished her coffee and cigarette, and they went out into the hall together, gathered equipment and rode the elevator to the fifth floor.

The lecture hall door was the nearest; they attacked it first. With proper equipment and help, it was no problem and in ten minutes they had it open wide enough to squeeze through with the floodlights. The room inside was quite empty, and, like most of the rooms behind closed doors, comparatively free from dust. The students, it appeared, had sat with their backs to the door, facing a low platform, but their seats and the lecturer's table and equipment had been removed. The two side walls bore inscriptions: on the right, a pattern of concentric circles which she recognized as a diagram of atomic structure, and on the left a complicated table of numbers and words, in two columns. Tranter was pointing at the diagram on the right.



"They got as far as the Bohr atom, anyhow," he said. "Well, not quite. They knew about electron shells, but they have the nucleus pictured as a solid mass. No indication of proton-and-neutron structure. I'll bet, when you come to translate their scientific books, you'll find that they taught that the atom was the ultimate and indivisible particle. That explains why you people never found any evidence that the Martians used nuclear energy."

"That's a uranium atom," Captain Miles mentioned.

"It is?" Sid Chamberlain asked, excitedly. "Then they did know about atomic energy. Just because we haven't found any pictures of A-bomb mushrooms doesn't mean—"

She turned to look at the other wall. Sid's signal reactions were setting away from him again; uranium meant nuclear power to him, and the two words were interchangeable. As she studied the arrangement of the numbers and words, she could hear Tranter saying:

"Nuts, Sid. We knew about uranium a long time before anybody found out

what could be done with it. Uranium was discovered on Terra in 1789, by Klaproth."

There was something familiar about the table on the left wall. She tried to remember what she had been taught in school about physics, and what she had picked up by accident afterward. The second column was a continuation of the first: there were forty-six items in each, each item numbered consecutively—

"Probably used uranium because it's the largest of the natural atoms," Penrose was saying. "The fact that there's nothing beyond it there shows that they hadn't created any of the transuranics. A student could go to that thing and point out the outer electron of any of the ninety-two elements."

Ninety-two! That was it; there were ninety-two items in the table on the left wall! Hydrogen was Number One, she knew; One, *Sarfaldsorn*. Helium was Two; that was *Tirfaldsorn*. She couldn't remember which element came next, but in Martian it was*Sarfalddavas*. *Sorn* must mean matter, or substance, then. And *davas*; she was trying to think of what it could be. She turned quickly to the others, catching hold of Hubert Penrose's arm with one hand and waving her clipboard with the other.

"Look at this thing, over here," she was clamoring excitedly. "Tell me what you think it is. Could it be a table of the elements?"

They all turned to look. Mort Tranter stared at it for a moment.

"Could be. If I only knew what those squiggles meant—"

That was right; he'd spent his time aboard the ship.

"If you could read the numbers, would that help?" she asked, beginning to set down the Arabic digits and their Martian equivalents. "It's decimal system, the same as we use."

"Sure. If that's a table of elements, all I'd need would be the numbers. Thanks," he added as she tore off the sheet and gave it to him.

Penrose knew the numbers, and was ahead of him. "Ninety-two items, numbered consecutively. The first number would be the atomic number. Then a single word, the name of the element. Then the atomic weight—"

She began reading off the names of the elements. "I know hydrogen and helium; what's *tirfalddavas*, the third one?"[1]

"Lithium," Tranter said. "The atomic weights aren't run out past the

decimal point. Hydrogen's one plus, if that double-hook dingus is a plus sign; Helium's four-plus, that's right. And lithium's given as seven, that isn't right. It's six-point nine-four-oh. Or is that thing a Martian minus sign?"

"Of course! Look! A plus sign is a hook, to hang things together; a minus sign is a knife, to cut something off from something—see, the little loop is the handle and the long pointed loop is the blade. Stylized, of course, but that's what it is. And the fourth element, kiradavas; what's that?"

"Beryllium. Atomic weight given as nine-and-a-hook; actually it's nine-point-oh-two."

Sid Chamberlain had been disgruntled because he couldn't get a story about the Martians having developed atomic energy. It took him a few minutes to understand the newest development, but finally it dawned on him.

"Hey! You're reading that!" he cried. "You're reading Martian!"

"That's right," Penrose told him. "Just reading it right off. I don't get the two items after the atomic weight, though. They look like months of the Martian calendar. What ought they to be, Mort?"

Tranter hesitated. "Well, the next information after the atomic weight ought to be the period and group numbers. But those are words."

"What would the numbers be for the first one, hydrogen?"

"Period One, Group One. One electron shell, one electron in the outer shell," Tranter told her. "Helium's period one, too, but it has the outer—only—electron shell full, so it's in the group of inert elements."

"*Trav, Trav. Trav's* the first month of the year. And helium's *Trav, Yenth*; *Yenth* is the eighth month."

"The inert elements could be called Group Eight, yes. And the third element, lithium, is Period Two, Group One. That check?"

"It certainly does. *Sanv, Trav*; *Sanv's* the second month. What's the first element in Period Three?"

"Sodium. Number Eleven."

That's right; it's *Krav, Trav*. Why, the names of the months are simply numbers, one to ten, spelled out.

"*Doma*'s the fifth month. That was your first Martian word, Martha," Penrose told her. "The word for five. And if *davas* is the word for metal, and

sornhulva is chemistry and / or physics, I'll bet Tadavas Sornhulva is literally translated as: Of-Metal Matter-Knowledge. Metallurgy, in other words. I wonder what Mastharnorvod means." It surprised her that, after so long and with so much happening in the meantime, he could remember that. "Something like 'Journal,' or 'Review,' or maybe 'Quarterly.'"

"We'll work that out, too," she said confidently. After this, nothing seemed impossible. "Maybe we can find—" Then she stopped short. "You said 'Quarterly.' I think it was 'Monthly,' instead. It was dated for a specific month, the fifth one. And if *nor* is ten, Mastharnorvod could be 'Year-Tenth.' And I'll bet we'll find that *masthar* is the word for year." She looked at the table on the wall again. "Well, let's get all these words down, with translations for as many as we can."

"Let's take a break for a minute," Penrose suggested, getting out his cigarettes. "And then, let's do this in comfort. Jeff, suppose you and Sid go across the hall and see what you find in the other room in the way of a desk or something like that, and a few chairs. There'll be a lot of work to do on this."

Sid Chamberlain had been squirming as though he were afflicted with ants, trying to contain himself. Now he let go with an excited jabber.

"This is really it! *The* it, not just it-of-the-week, like finding the reservoirs or those statues or this building, or even the animals and the dead Martians! Wait till Selim and Tony see this! Wait till Tony sees it; I want to see his face! And when I get this on telecast, all Terra's going to go nuts about it!" He turned to Captain Miles. "Jeff, suppose you take a look at that other door, while I find somebody to send to tell Selim and Tony. And Gloria; wait till she sees this—"

"Take it easy, Sid," Martha cautioned. "You'd better let me have a look at your script, before you go too far overboard on the telecast. This is just a beginning; it'll take years and years before we're able to read any of those books downstairs."

"It'll go faster than you think, Martha," Hubert Penrose told her. "We'll all work on it, and we'll teleprint material to Terra, and people there will work on it. We'll send them everything we can ... everything we work out, and copies of books, and copies of your word-lists—"

And there would be other tables—astronomical tables, tables in physics and mechanics, for instance—in which words and numbers were equivalent.

The library stacks, below, would be full of them. Transliterate them into Roman alphabet spellings and Arabic numerals, and somewhere, somebody would spot each numerical significance, as Hubert Penrose and Mort Tranter and she had done with the table of elements. And pick out all the chemistry textbooks in the Library; new words would take on meaning from contexts in which the names of elements appeared. She'd have to start studying chemistry and physics, herself —

Sachiko Koremitsu peeped in through the door, then stepped inside.

"Is there anything I can do—?" she began. "What's happened? Something important?"

"Important?" Sid Chamberlain exploded. "Look at that, Sachi! We're reading it! Martha's found out how to read Martian!" He grabbed Captain Miles by the arm. "Come on, Jeff; let's go. I want to call the others—" He was still babbling as he hurried from the room.

Sachi looked at the inscription. "Is it true?" she asked, and then, before Martha could more than begin to explain, flung her arms around her. "Oh, it really is! You are reading it! I'm so happy!"

She had to start explaining again when Selim von Ohlmhorst entered. This time, she was able to finish.

"But, Martha, can you be really sure? You know, by now, that learning to read this language is as important to me as it is to you, but how can you be so sure that those words really mean things like hydrogen and helium and boron and oxygen? How do you know that their table of elements was anything like ours?"

Tranter and Penrose and Sachiko all looked at him in amazement.

"That isn't just the Martian table of elements; that's *the* table of elements. It's the only one there is." Mort Tranter almost exploded. "Look, hydrogen has one proton and one electron. If it had more of either, it wouldn't be hydrogen, it'd be something else. And the same with all the rest of the elements. And hydrogen on Mars is the same as hydrogen on Terra, or on Alpha Centauri, or in the next galaxy—"

"You just set up those numbers, in that order, and any first-year chemistry student could tell you what elements they represented." Penrose said. "Could if

he expected to make a passing grade, that is."

The old man shook his head slowly, smiling. "I'm afraid I wouldn't make a passing grade. I didn't know, or at least didn't realize, that. One of the things I'm going to place an order for, to be brought on the *Schiaparelli*, will be a set of primers in chemistry and physics, of the sort intended for a bright child of ten or twelve. It seems that a Martiologist has to learn a lot of things the Hittites and the Assyrians never heard about."

Tony Lattimer, coming in, caught the last part of the explanation. He looked quickly at the walls and, having found out just what had happened, advanced and caught Martha by the hand.

"You really did it, Martha! You found your bilingual! I never believed that it would be possible; let me congratulate you!"

He probably expected that to erase all the jibes and sneers of the past. If he did, he could have it that way. His friendship would mean as little to her as his derision—except that his friends had to watch their backs and his knife. But he was going home on the *Cyrano*, to be a big shot. Or had this changed his mind for him again?

"This is something we can show the world, to justify any expenditure of time and money on Martian archaeological work. When I get back to Terra, I'll see that you're given full credit for this achievement—"

On Terra, her back and his knife would be out of her watchfulness.

"We won't need to wait that long," Hubert Penrose told him dryly. "I'm sending off an official report, tomorrow; you can be sure Dr. Dane will be given full credit, not only for this but for her previous work, which made it possible to exploit this discovery."

"And you might add, work done in spite of the doubts and discouragements of her colleagues," Selim von Ohlmhorst said. "To which I am ashamed to have to confess my own share."

"You said we had to find a bilingual," she said. "You were right, too."

"This is better than a bilingual, Martha," Hubert Penrose said. "Physical science expresses universal facts; necessarily it is a universal language. Heretofore archaeologists have dealt only with pre-scientific cultures."

THE END

INDUSTRIAL REVOLUTION



by Poul Anderson

Ever think how deadly a thing it is
if a machine has amnesia—
or how easily it can be arranged....



"Well, yes," Amspaugh admitted, "it was a unique war in many ways, including its origin. However, there are so many analogies to other colonial revolutions—" His words trailed off as usual.

"I know. Earth's mercantile policies and so forth," said Lindgren. He fancies himself a student of interplanetary history. This has led to quite a few arguments since Amspaugh, who teaches in that field, joined the Club. Mostly they're good. I went to the bar and got myself another drink, listening as the mine owner's big voice went on:

"But what began it? When did the asterites first start realizing they weren't pseudopods of a dozen Terrestrial nations, but a single nation in their own right? There's the root of the revolution. And it can be pinned down, too."

"'Ware metaphor!" cried someone at my elbow. I turned and saw Missy Blades. She'd come quietly into the lounge and started mixing a gin and bitters.

The view window framed her white head in Orion as she moved toward the little cluster of seated men. She took a fat cigar from her pocket, struck it on her shoe sole, and added her special contribution to the blue cloud in the room after she sat down.

"Excuse me," she said. "I couldn't help that. Please go on." Which I hope relieves you of any fear that she's an Unforgettable Character. Oh, yes, she's old as Satan now; her toil and guts and conniving make up half the biography of the Sword; she manned a gun turret at Ceres, and was mate of the *Tyrfing* on some of the earliest Saturn runs when men took their lives between their teeth because they needed both hands free; her sons and grandsons fill the Belt with their brawling ventures; she can drink any ordinary man to the deck; she's one of the three women ever admitted to the Club. But she's also one of the few genuine ladies I've known in my life.

"Uh, well," Lindgren grinned at her. "I was saying, Missy, the germ of the revolution was when the Stations armed themselves. You see, that meant more than police powers. It implied a degree of sovereignty. Over the years, the implication grew."

"Correct." Orloff nodded his bald head. "I remember how the Governing Commission squalled when the Station managers first demanded the right. They foresaw trouble. But if the Stations belonging to one country put in space weapons, what else could the others do?"

"They should have stuck together and all been firm about refusing to allow it," Amspaugh said. "From the standpoint of their own best interests, I mean."

"They tried to," Orloff replied. "I hate to think how many communications we sent home from our own office, and the others must have done the same. But Earth was a long way off. The Station bosses were close. Inverse square law of political pressure."

"I grant you, arming each new little settlement proved important," Amspaugh said. "But really, it expressed nothing more than the first inchoate

stirrings of asteroid nationalism. And the origins of that are much more subtle and complex. For instance ... er...."

"You've got to have a key event somewhere," Lindgren insisted. "I say that this was it."

A silence fell, as will happen in conversation. I came back from the bar and settled myself beside Missy. She looked for a while into her drink, and then out to the stars. The slow spin of our rock had now brought the Dippers into view. Her faded eyes sought the Pole Star—but it's Earth's, not our own any more—and I wondered what memories they were sharing. She shook herself the least bit and said:

"I don't know about the sociological ins and outs. All I know is, a lot of things happened, and there wasn't any pattern to them at the time. We just slogged through as best we were able, which wasn't really very good. But I can identify one of those wriggling roots for you, Sigurd. I was there when the question of arming the Stations first came up. Or, rather, when the incident occurred that led directly to the question being raised."

Our whole attention went to her. She didn't dwell on the past as often as we would have liked.

A slow, private smile crossed her lips. She looked beyond us again. "As a matter of fact," she murmured, "I got my husband out of it." Then quickly, as if to keep from remembering too much:

"Do you care to hear the story? It was when the Sword was just getting started. They'd established themselves on SSC 45—oh, never mind the catalogue number. Sword Enterprises, because Mike Blades' name suggested it—what kind of name could you get out of Jimmy Chung, even if he was the senior partner? It'd sound too much like a collision with a meteorite—so naturally the asteroid also came to be called the Sword. They began on the borrowed shoestring that was usual in those days. Of course, in the Belt a shoestring has to be mighty long, and finances got stretched to the limit. The older men here will know how much had to be done by hand, in mortal danger, because machines were too expensive. But in spite of everything, they succeeded. The Station was functional and they were ready to start business when—"

It was no coincidence that the Jupiter craft were arriving steadily when the battleship came. Construction had been scheduled with this in mind, that the Sword should be approaching conjunction with the king planet, making direct shuttle service feasible, just as the chemical plant went into service. We need not consider how much struggle and heartbreak had gone into meeting that schedule. As for the battleship, she appeared because the fact that a Station in just this orbit was about to commence operations was news important enough to cross the Solar System and push through many strata of bureaucracy. The heads of the recently elected North American government became suddenly, fully aware of what had been going on.

Michael Blades was outside, overseeing the installation of a receptor, when his earplug buzzed. He thrust his chin against the tuning plate, switching from gang to interoffice band. "Mike?" said Avis Page's voice, "You're wanted up front."

"Now?" he objected. "Whatever for?"

"Courtesy visit from the NASS *Altair*. You've lost track of time, my boy."

"What the ... the jumping blue blazes are you talking about? We've had our courtesy visit. Jimmy and I both went over to pay our respects, and we had Rear Admiral Hulse here to dinner. What more do they expect, for Harry's sake?"

"Don't you remember? Since there wasn't room to entertain his officers, you promised to take them on a personal guided tour later. I made the appointment the very next watch. Now's the hour."

"Oh, yes, it comes back to me. Yeah. Hulse brought a magnum of champagne with him, and after so long a time drinking recycled water, my capacity was shot to pieces. I got a warm glow of good fellowship on, and offered —Let Jimmy handle it, I'm busy."

"The party's too large, he says. You'll have to take half of them. Their gig will dock in thirty minutes."

"Well, depute somebody else."

"That'd be rude, Mike. Have you forgotten how sensitive they are about rank at home?" Avis hesitated. "If what I believe about the mood back there is true, we can use the good will of high-level Navy personnel. And any other influential people in sight."

Blades drew a deep breath. "You're too blinking sensible. Remind me to

fire you after I've made my first ten million bucks."

"What'll you do for your next ten million, then?" snipped his secretary-file clerk-confidante-adviser-et cetera.

"Nothing. I'll just squander the first."

"Goody! Can I help?"

"Uh ... I'll be right along." Blades switched off. His ears felt hot, as often of late when he tangled with Avis, and he unlimbered only a few choice oaths.

"Troubles?" asked Carlos Odonaju.

Blades stood a moment, looking around, before he answered. He was on the wide end of the Sword, which was shaped roughly like a truncated pyramid. Beyond him and his half dozen men stretched a vista of pitted rock, jutting crags, gulf-black shadows, under the glare of floodlamps. A few kilometers away, the farthest horizon ended, chopped off like a cliff. Beyond lay the stars, crowding that night which never ends. It grew very still while the gang waited for his word. He could listen to his own lungs and pulse, loud in the spacesuit; he could even notice its interior smell, blend of plastic and oxygen cycle chemicals, flesh and sweat. He was used to the sensation of hanging upside down on the surface, grip-soled boots holding him against that fractional gee by which the asteroid's rotation overcame its feeble gravity. But it came to him that this was an eerie bat-fashion way for an Oregon farm boy to stand.

Oregon was long behind him, though, not only the food factory where he grew up but the coasts where he had fished and the woods where he had tramped. No loss. There'd always been too many tourists. You couldn't escape from people on Earth. Cold and vacuum and raw rock and everything, the Belt was better. It annoyed him to be interrupted here.

Could Carlos take over as foreman? N-no, Blades decided, not yet. A gas receptor was an intricate piece of equipment. Carlos was a good man of his hands. Every one of the hundred-odd in the Station necessarily was. But he hadn't done this kind of work often enough.

"I have to quit," Blades said. "Secure the stuff and report back to Buck Meyers over at the dock, the lot of you. His crew's putting in another recoil pier, as I suppose you know. They'll find jobs for you. I'll see you here again on your next watch."

He waved—being half the nominal ownership of this place didn't justify snobbery, when everyone must work together or die—and stepped off toward the nearest entry lock with that flowing spaceman's pace which always keeps one foot on the ground. Even so, he didn't unshackle his inward-reeling lifeline till he was inside the chamber.

On the way he topped a gaunt ridge and had a clear view of the balloons that were attached to the completed receptors. Those that were still full bulked enormous, like ghostly moons. The Jovian gases that strained their tough elastomer did not much blur the stars seen through them; but they swelled high enough to catch the light of the hidden sun and shimmer with it. The nearly discharged balloons hung thin, straining outward. Two full ones passed in slow orbit against the constellations. They were waiting to be hauled in and coupled fast, to release their loads into the Station's hungry chemical plant. But there were not yet enough facilities to handle them at once—and the *Pallas Castle* would soon be arriving with another—Blades found that he needed a few extra curses.

Having cycled through the air lock, he removed his suit and stowed it, also the heavy gloves which kept him from frostbite as he touched its space-cold exterior. Tastefully clad in a Navy surplus Long John, he started down the corridors.

Now that the first stage of burrowing within the asteroid had been completed, most passages went through its body, rather than being plastic tubes snaking across the surface. Nothing had been done thus far about facing them. They were merely shafts, two meters square, lined with doorways, ventilator grilles, and fluoropanels. They had no thermocoils. Once the nickel-iron mass had been sufficiently warmed up, the waste heat of man and his industry kept it that way. The dark, chipped-out tunnels throbbed with machine noises. Here and there a girlie picture or a sentimental landscape from Earth was posted. Men moved busily along them, bearing tools, instruments, supplies. They were from numerous countries, those men, though mostly North Americans, but they had acquired a likeness, a rangy leathery look and a free-swinging stride, that went beyond their colorful coveralls.

"Hi, Mike.... How's she spinning?... Hey, Mike, you heard the latest story about the Martian and the bishop?... Can you spare me a minute? We got

troubles in the separator manifolds.... What's the hurry, Mike, your batteries overcharged?" Blades waved the hails aside. There was need for haste. You could move fast indoors, under the low weight which became lower as you approached the axis of rotation, with no fear of tumbling off. But it was several kilometers from the gas receptor end to the people end of the asteroid.

He rattled down a ladder and entered his cramped office out of breath. Avis Page looked up from her desk and wrinkled her freckled snub nose at him. "You ought to take a shower, but there isn't time," she said. "Here, use my antistinker." She threw him a spray cartridge with a deft motion. "I got your suit and beardex out of your cabin."

"Have I no privacy?" he grumbled, but grinned in her direction. She wasn't much to look at—not ugly, just small, brunette, and unspectacular—but she was a supernova of an assistant. Make somebody a good wife some day. He wondered why she hadn't taken advantage of the situation here to snaffle a husband. A dozen women, all but two of them married, and a hundred men, was a ratio even more lopsided than the norm in the Belt. Of course with so much work to do, and with everybody conscious of the need to maintain cordial relations, sex didn't get much chance to rear its lovely head. Still—

She smiled back with the gentleness that he found disturbing when he noticed it. "Shoo," she said. "Your guests will be here any minute. You're to meet them in Jimmy's office."

Blades ducked into the tiny washroom. He wasn't any 3V star himself, he decided as he smeared cream over his face: big, homely, red-haired. *But not something you'd be scared to meet in a dark alley, either,* he added smugly. In fact, there had been an alley in Aresopolis.... Things were expected to be going so smoothly by the time they approached conjunction with Mars that he could run over to that sinful ginful city for a vacation. Long overdue ... whooee! He wiped off his whiskers, shucked the zipskin, and climbed into the white pants and high-collared blue tunic that must serve as formal garb.

Emerging, he stopped again at Avis' desk. "Any message from the *Pallas*?" he asked.

"No," the girl said. "But she ought to be here in another two watches, right on sked. You worry too much, Mike."

"Somebody has to, and I haven't got Jimmy's Buddhist ride-with-the-punches attitude."

"You should cultivate it." She grew curious. The brown eyes lingered on him. "Worry's contagious. You make me fret about you."

"Nothing's going to give me an ulcer but the shortage of booze on this rock. Uh, if Bill Mbolo should call about those catalysts while I'm gone, tell him—" He ran off a string of instructions and headed for the door.

Chung's hangout was halfway around the asteroid, so that one chief or the other could be a little nearer the scene of any emergency. Not that they spent much time at their desks. Shorthanded and undermechanized, they were forever having to help out in the actual construction. Once in a while Blades found himself harking wistfully back to his days as an engineer with Solar Metals: good pay, interesting if hazardous work on flying mountains where men had never trod before, and no further responsibilities. But most asterites had the dream of becoming their own bosses.

When he arrived, the *Altair* officers were already there, a score of correct young men in white dress uniforms. Short, squat, and placid looking, Jimmy Chung stood making polite conversation. "Ah, there," he said, "Lieutenant Ziska and gentlemen, my partner, Michael Blades, Mike, may I present—"

Blades' attention stopped at Lieutenant Ziska. He heard vaguely that she was the head quartermaster officer. But mainly she was tall and blond and blue-eyed, with a bewitching dimple when she smiled, and filled her gown the way a Cellini Venus doubtless filled its casting mold.

"Very pleased to meet you, Mr. Blades," she said as if she meant it. Maybe she did! He gulped for air.

"And Commander Leibknecht," Chung said across several light-years. "Commander Leibknecht. *Commander Leibknecht.*"

"Oh. Sure. 'Scuse." Blades dropped Lieutenant Ziska's hand in reluctant haste. "Hardjado, C'mander Leibfraumilch."

Somehow the introductions were gotten through. "I'm sorry we have to be so inhospitable," Chung said, "but you'll see how crowded we are. About all we can do is show you around, if you're interested."

"Of course you're interested," said Blades to Lieutenant Ziska. "I'll show you some gimmicks I thought up myself."

Chung scowled at him. "We'd best divide the party and proceed along alternate routes," he said, "We'll meet again in the mess for coffee, Lieutenant Ziska, would you like to—"

"Come with me? Certainly," Blades said.

Chung's glance became downright murderous. "I thought—" he began.

"Sure." Blades nodded vigorously. "You being the senior partner, you'll take the highest ranking of these gentlemen, and I'll be in Scotland before you. C'mon, let's get started. May I?" He offered the quartermistress his arm. She smiled and took it. He supposed that eight or ten of her fellows trailed them.

The first disturbing note was sounded on the verandah.



They had glanced at the cavelike dormitories where most of the personnel lived; at the recreation dome topside which made the life tolerable; at kitchen,

sick bay, and the other service facilities; at the hydroponic tanks and yeast vats which supplied much of the Station's food; at the tiny cabins scooped out for the top engineers and the married couples. Before leaving this end of the asteroid, Blades took his group to the verandah. It was a clear dome jutting from the surface, softly lighted, furnished as a primitive officers' lounge, open to a view of half the sky.

"Oh-h," murmured Ellen Ziska. Unconsciously she moved closer to Blades.

Young Lieutenant Commander Gilbertson gave her a somewhat jaundiced look. "You've seen deep space often enough before," he said.

"Through a port or a helmet." Her eyes glimmered enormous in the dusk. "Never like this."

The stars crowded close in their wintry myriads. The galactic belt glistened, diamond against infinite darkness. Vision toppled endlessly outward, toward the far mysterious shimmer of the Andromeda Nebula; silence was not a mere absence of noise, but a majestic presence, the seething of suns.

"What about the observation terrace at Leyburg?" Gilbertson challenged.

"That was different," Ellen Ziska said. "Everything was safe and civilized. This is like being on the edge of creation."

Blades could see why Goddard House had so long resisted the inclusion of female officers on ships of the line, despite political pressure at home and the Russian example abroad. He was glad they'd finally given in. Now if only he could build himself up as a dashing, romantic type ... But how long would the *Altair* stay? Her stopover seemed quite extended already, for a casual visit in the course of a routine patrol cruise. He'd have to work fast.

"Yes, we are pretty isolated," he said. "The Jupiter ships just unload their balloons, pick up the empties, and head right back for another cargo."

"I don't understand how you can found an industry here, when your raw materials only arrive at conjunction," Ellen said.

"Things will be different once we're in full operation," Blades assured her. "Then we'll be doing enough business to pay for a steady input, transshipped from whatever depot is nearest Jupiter at any given time."

"You've actually built this simply to process ... gas?" Gilbertson interposed. Blades didn't know whether he was being sarcastic or asking a genuine question. It was astonishing how ignorant Earthsiders, even space-traveling

Earthsiders, often were about such matters.

"Jovian gas is rich stuff," he explained. "Chiefly hydrogen and helium, of course; but the scoopships separate out most of that during a pickup. The rest is ammonia, water, methane, a dozen important organics, including some of the damn ... doggonedest metallic complexes you ever heard of. We need them as the basis of a chemosynthetic industry, which we need for survival, which we need if we're to get the minerals that were the reason for colonizing the Belt in the first place." He waved his hand at the sky. "When we really get going, we'll attract settlement. This asteroid has companions, waiting for people to come and mine them. Homeships and orbital stations will be built. In ten years there'll be quite a little city clustered around the Sword."

"It's happened before," nodded tight-faced Commander Warburton of Gunnery Control.

"It's going to happen a lot oftener," Blades said enthusiastically. "The Belt's going to grow!" He aimed his words at Ellen. "This is the real frontier. The planets will never amount to much. It's actually harder to maintain human-type conditions on so big a mass, with a useless atmosphere around you, than on a lump in space like this. And the gravity wells are so deep. Even given nuclear power, the energy cost of really exploiting a planet is prohibitive. Besides which, the choice minerals are buried under kilometers of rock. On a metallic asteroid, you can find almost everything you want directly under your feet. No limit to what you can do."

"But your own energy expenditure—" Gilbertson objected.

"That's no problem." As if on cue, the worldlet's spin brought the sun into sight. Tiny but intolerably brilliant, it flooded the dome with harsh radiance. Blades lowered the blinds on that side. He pointed in the opposite direction, toward several sparks of equal brightness that had manifested themselves.

"Hundred-meter parabolic mirrors," he said. "Easy to make; you spray a thin metallic coat on a plastic backing. They're in orbit around us, each with a small geegee unit to control drift and keep it aimed directly at the sun. The focused radiation charges heavy-duty accumulators, which we then collect and use for our power source in all our mobile work."

"Do you mean you haven't any nuclear generator?" asked Warburton.

He seemed curiously intent about it. Blades wondered why, but nodded.

"That's correct. We don't want one. Too dangerous for us. Nor is it necessary. Even at this distance from the sun, and allowing for assorted inefficiencies, a mirror supplies better than five hundred kilowatts, twenty-four hours a day, year after year, absolutely free."

"Hm-m-m. Yes." Warburton's lean head turned slowly about, to rake Blades with a look of calculation. "I understand that's the normal power system in Stations of this type. But we didn't know if it was used in your case, too."

Why should you care? Blades thought.

He shoved aside his faint unease and urged Ellen toward the dome railing. "Maybe we can spot your ship, Lieutenant, uh, Miss Ziska. Here's a telescope. Let me see, her orbit ought to run about so...."

He hunted until the *Altair* swam into the viewfield. At this distance the spheroid looked like a tiny crescent moon, dully painted; but he could make out the sinister shapes of a rifle turret and a couple of missile launchers. "Have a look," he invited. Her hair tickled his nose, brushing past him. It had a delightful sunny odor.

"How small she seems," the girl said, with the same note of wonder as before. "And how huge when you're aboard."

Big, all right, Blades knew, and loaded to the hatches with nuclear hellfire. But not massive. A civilian spaceship carried meteor plating, but since that was about as useful as wet cardboard against modern weapons, warcraft sacrificed it for the sake of mobility. The self-sealing hull was thin magnesium, the outer shell periodically renewed as cosmic sand eroded it.

"I'm not surprised we orbited, instead of docking," Ellen remarked. "We'd have butted against your radar and bellied into your control tower."

"Well, actually, no," said Blades. "Even half finished, our dock's big enough to accommodate you, as you'll see today. Don't forget, we anticipate a lot of traffic in the future. I'm puzzled why you didn't accept our invitation to use it."

"Doctrine!" Warburton clipped.

The sun came past the blind and touched the officers' faces with incandescence. Did some look startled, one or two open their mouths as if to protest and then snap them shut again at a warning look? Blades' spine tingled.

I never heard of any such doctrine, he thought, *least of all when a North American ship drops in on a North American Station.*

"Is ... er ... is there some international crisis brewing?" he inquired.

"Why, no." Ellen straightened from the telescope. "I'd say relations have seldom been as good as they are now. What makes you ask?"

"Well, the reason your captain didn't—"

"Never mind," Warburton said. "We'd better continue the tour, if you please."

Blades filed his misgivings for later reference. He might have fretted immediately, but Ellen Ziska's presence forbade that. A sort of Pauli exclusion principle. One can't have two spins simultaneously, can one? He gave her his arm again. "Let's go on to Central Control," he proposed. "That's right behind the people section."

"You know, I can't get over it," she told him softly. "This miracle you've wrought. I've never been more proud of being human."

"Is this your first long space trip?"

"Yes, I was stationed at Port Colorado before the new Administration reshuffled armed service assignments."

"They did? How come?"

"I don't know. Well, that is, during the election campaign the Social Justice Party did talk a lot about old-line officers who were too hidebound to carry out modern policies effectively. But it sounded rather silly to me."

Warburton compressed his lips. "I do not believe it is proper for service officers to discuss political issues publicly," he said like a machine gun.

Ellen flushed. "S-sorry, commander."

Blades felt a helpless anger on her account. He wasn't sure why. What was she to him? He'd probably never see her again. A hell of an attractive target, to be sure; and after so much celibacy he was highly vulnerable; but did she really matter?

He turned his back on Warburton and his eyes on her—a five thousand per cent improvement—and diverted her from her embarrassment by asking, "Are you from Colorado, then, Miss Ziska?"

"Oh, no. Toronto."

"How'd you happen to join the Navy, if I may make so bold?"

"Gosh, that's hard to say. But I guess mostly I felt so crowded at home. So, pigeonholed. The world seemed to be nothing but neat little pigeonholes."

"Uh-huh. Same here. I was also a square pigeon in a round hole." She laughed. "Luckily," he added, "Space is too big for compartments."

Her agreement lacked vigor. The Navy must have been a disappointment to her. But she couldn't very well say so in front of her shipmates.

Hm-m-m ... if she could be gotten away from them—"How long will you be here?" he inquired. His pulse thuttered.

"We haven't been told," she said.

"Some work must be done on the missile launchers," Warburton said. "That's best carried out here, where extra facilities are available if we need them. Not that I expect we will." He paused. "I hope we won't interfere with your own operations."

"Far from it." Blades beamed at Ellen. "Or, more accurately, this kind of interference I don't mind in the least."

She blushed and her eyelids fluttered. Not that she was a fluffhead, he realized. But to avoid incidents, Navy regulations enforced an inhuman correctness between personnel of opposite sexes. After weeks in the black, meeting a man who could pay a compliment without risking court-martial must be like a shot of adrenalin. Better and better!

"Are you sure?" Warburton persisted. "For instance, won't we be in the way when the next ship comes from Jupiter?"

"She'll approach the opposite end of the asteroid," Blades said. "Won't stay long, either."

"How long?"

"One watch, so the crew can relax a bit among those of us who're off duty. It'd be a trifle longer if we didn't happen to have an empty bag at the moment. But never very long. Even running under thrust the whole distance, Jupe's a good ways off. They've no time to waste."

"When is the next ship due?"

"The *Pallas Castle* is expected in the second watch from now."

"Second watch. I see." Warburton stalked on with a brooding expression on his Puritan face.

Blades might have speculated about that, but someone asked him why the Station depended on spin for weight. Why not put in an internal field generator, like a ship? Blades explained patiently that an Emett large enough to produce uniform pull through a volume as big as the Sword was rather expensive. "Eventually, when we're a few megabucks ahead of the game—"

"Do you really expect to become rich?" Ellen asked. Her tone was awed. No Earthsider had that chance any more, except for the great corporations. "*Individually* rich?"

"We can't fail to. I tell you, this is a frontier like nothing since the Conquistadores. We could very easily have been wiped out in the first couple of years—financially or physically—by any of a thousand accidents. But now we're too far along for that. We've got it made, Jimmy and I."

"What will you do with your wealth?"

"Live like an old-time sultan," Blades grinned. Then, because it was true as well as because he wanted to shine in her eyes: "Mostly, though, we'll go on to new things. There's so much that needs to be done. Not simply more asteroid mines. We need farms; timber; parks; passenger and cargo liners; every sort of machine. I'd like to try getting at some of that water frozen in the Saturnian System. Altogether, I see no end to the jobs. It's no good our depending on Earth for anything. Too expensive, too chancy. The Belt has to be made completely self-sufficient."

"With a nice rakeoff for Sword Enterprises," Gilbertson scoffed.

"Why, sure. Aren't we entitled to some return?"

"Yes. But not so out of proportion as the Belt companies seem to expect. They're only using natural resources that rightly belong to the people, and the accumulated skills and wealth of an entire society."

"Huh! The People didn't do anything with the Sword. Jimmy and I and our boys did. No Society was around here grubbing nickel-iron and riding out gravel storms; we were."

"Let's leave politics alone," Warburton snapped. But it was mostly Ellen's look of distress which shut Blades up.

To everybody's relief, they reached Central Control about then. It was a complex of domes and rooms, crammed with more equipment than Blades could put a name to. Computers were in Chung's line, not his. He wasn't able to

answer all of Warburton's disconcertingly sharp questions.

But in a general way he could. Whirling through vacuum with a load of frail humans and intricate artifacts, the Sword must be at once machine, ecology, and unified organism. Everything had to mesh. A failure in the thermodynamic balance, a miscalculation in supply inventory, a few mirrors perturbed out of proper orbit, might spell Ragnarok. The chemical plant's purifications and syntheses were already a network too large for the human mind to grasp as a whole, and it was still growing. Even where men could have taken charge, automation was cheaper, more reliable, less risky of lives. The computer system housed in Central Control was not only the brain, but the nerves and heart of the Sword.

"Entirely cryotronic, eh?" Warburton commented. "That seems to be the usual practice at the Stations. Why?"

"The least expensive type for us," Blades answered. "There's no problem in maintaining liquid helium here."

Warburton's gaze was peculiarly intense. "Cryotronic systems are vulnerable to magnetic and radiation disturbances."

"Uh-huh. That's one reason we don't have a nuclear power plant. This far from the sun, we don't get enough emission to worry about. The asteroid's mass screens out what little may arrive. I know the TIMM system is used on ships; but if nothing else, the initial cost is more than we want to pay."

"What's TIMM?" inquired the *Altair's* chaplain.

"Thermally Integrated Micro-Miniaturized," Ellen said crisply. "Essentially, ultraminiaturized ceramic-to-metal-seal vacuum tubes running off thermionic generators. They're immune to gamma ray and magnetic pulses, easily shielded against particule radiation, and economical of power." She grinned. "Don't tell me there's nothing about them in Leviticus, Padre!"

"Very fine for a ship's autopilot," Blades agreed. "But as I said, we needn't worry about rad or mag units here, we don't mind sprawling a bit, and as for thermal efficiency, we want to waste some heat. It goes to maintain internal temperature."

"In other words, efficiency depends on what you need to effish," Ellen bantered. She grew grave once more and studied him for a while before she mused, "The same person who swung a pick, a couple of years ago, now deals

with something as marvelous as this....” He forgot about worrying.

But he remembered later, when the gig had left and Chung called him to his office. Avis came too, by request. As she entered, she asked why.

“You were visiting your folks Earthside last year,” Chung said. “Nobody else in the Station has been back as recently as that.”

“What can I tell you?”

“I’m not sure. Background, perhaps. The feel of the place. We don’t really know, out in the Belt, what’s going on there. The beamcast news is hardly a trickle. Besides, you have more common sense in your left little toe than that big mick yonder has on his entire copperplated head.”

They seated themselves in the cobwebby low-gee chairs around Chung’s desk. Blades took out his pipe and filled the bowl with his tobacco ration for today. Wouldn’t it be great, he thought dreamily, if this old briar turned out to be an Aladdin’s lamp, and the smoke condensed into a blonde she-Canadian—?

“Wake up, will you?” Chung barked.

“Huh?” Blades started. “Oh. Sure. What’s the matter? You look like a fish on Friday.”

“Maybe with reason. Did you notice anything unusual with that party you were escorting?”

“Yes, indeed.”

“What?”

“About one hundred seventy-five centimeters tall, yellow hair, blue eyes, and some of the smoothest fourth-order curves I ever—”

“Mike, stop that!” Avis sounded appalled. “This is serious.”

“I agree. She’ll be leaving in a few more watches.”

The girl bit her lip. “You’re too old for that mooncalf rot and you know it.”

“Agreed again. I feel more like a bull.” Blades made pawing motions on the desktop.

“There’s a lady present,” Chung said.

Blades saw that Avis had gone quite pale. “I’m sorry,” he blurted. “I never thought ... I mean, you’ve always seemed like—”

“One of the boys,” she finished for him in a brittle tone. “Sure. Forget it. What’s the problem, Jimmy?”

Chung folded his hands and stared at them. "I can't quite define that," he answered, word by careful word. "Perhaps I've simply gone spacedizzy. But when we called on Admiral Hulse, and later when he called on us, didn't you get the impression of, well, wariness? Didn't he seem to be watching and probing, every minute we were together?"

"I wouldn't call him a cheerful sort," Blades nodded. "Stiff as molasses on Pluto. But I suppose ... supposed he's just naturally that way."

Chung shook his head. "It wasn't a normal standoffishness. You've heard me reminisce about the time I was on Vesta with the North American technical representative, when the Convention was negotiated."

"Yes, I've heard that story a few times," said Avis dryly.

"Remember, that was right after the Europa Incident. We'd come close to a space war—undeclared, but it would have been nasty. We were still close. Every delegate went to that conference cocked and primed.

"Hulse had the same manner."

A silence fell. Blades said at length, "Well, come to think of it, he did ask some rather odd questions. He seemed to twist the conversation now and then, so he could find things out like our exact layout, emergency doctrine, and so forth. It didn't strike me as significant, though."

"Nor me," Chung admitted. "Taken in isolation, it meant nothing. But these visitors today—Sure, most of them obviously didn't suspect anything untoward. But that Liebknecht, now. Why was he so interested in Central Control? Nothing new or secret there. Yet he kept asking for details like the shielding factor of the walls."

"So did Commander Warburton," Blades remembered. "Also, he wanted to know exactly when the *Pallas* is due, how long she'll stay ... hm-m-m, yes, whether we have any radio linkage with the outside, like to Ceres or even the nearest Commission base—"

"Did you tell him that we don't?" Avis asked sharply.

"Yes. Shouldn't I have?"

"It scarcely makes any difference," Chung said in a resigned voice. "As thoroughly as they went over the ground, they'd have seen what we do and do not have installed so far."

He leaned forward. "Why are they hanging around?" he asked. "I was handed some story about overhauling the missile system."

"Me, too," Blades said.

"But you don't consider a job complete till it's been tested. And you don't fire a test shot, even a dummy, this close to a Station. Besides, what could have gone wrong? I can't see a ship departing Earth orbit for a long cruise without everything being in order. And they didn't mention any meteorites, any kind of trouble, en route. Furthermore, why do the work here? The Navy yard's at Ceres. We can't spare them any decent amount of materials or tools or help."

Blades frowned. His own half-formulated doubts shouldered to the fore, which was doubly unpleasant after he'd been considering Ellen Ziska. "They tell me the international situation at home is O.K.," he offered.

Avis nodded. "What newsfaxes we get in the mail indicate as much," she said. "So why this hanky-panky?" After a moment, in a changed voice: "Jimmy, you begin to scare me a little."

"I scare myself," Chung said.

"Every morning when you debeard," Blades said; but his heart wasn't in it. He shook himself and protested: "Damnation, they're our own countrymen. We're engaged in a lawful business. Why should they do anything to us?"

"Maybe Avis can throw some light on that," Chung suggested.

The girl twisted her fingers together. "Not me," she said. "I'm no politician."

"But you were home not so long ago. You talked with people, read the news, watched the 3V. Can't you at least give an impression?"

"N-no—Well, of course the preliminary guns of the election campaign were already being fired. The Social Justice Party was talking a lot about ... oh, it seemed so ridiculous that I didn't pay much attention."

"They talked about how the government had been pouring billions and billions of dollars into space, while overpopulation produced crying needs in America's back yard," Chung said. "We know that much, even in the Belt. We know the appropriations are due to be cut, now the Essjays are in. So what?"

"We don't need a subsidy any longer," Blades remarked. "It'd help a lot, but we can get along without if we have to, and personally, I prefer that. Less government money means less government control."

"Sure," Avis said. "There was more than that involved, however. The Essjays were complaining about the small return on the investment. Not enough minerals coming back to Earth."

"Well, for Jupiter's sake," Blades exclaimed, "what do they expect? We have to build up our capabilities first."

"They even said, some of them, that enough reward never would be gotten. That under existing financial policies, the Belt would go in for its own expansion, use nearly everything it produced for itself and export only a trickle to America. I had to explain to several of my parents' friends that I wasn't really a socially irresponsible capitalist."

"Is that all the information you have?" Chung asked when she fell silent.

"I ... I suppose so. Everything was so vague. No dramatic events. More of an atmosphere than a concrete thing."

"Still, you confirm my own impression," Chung said. Blades jerked his undisciplined imagination back from the idea of a Thing, with bug eyes and tentacles, cast in reinforced concrete, and listened as his partner summed up:

"The popular feeling at home has turned against private enterprise. You can hardly call a corporate monster like Systemic Developments a private enterprise! The new President and Congress share that mood. We can expect to see it manifested in changed laws and regulations. But what has this got to do with a battleship parked a couple of hundred kilometers from us?"

"If the government doesn't want the asterites to develop much further—" Blades bit hard on his pipestem. "They must know we have a caviar mine here. We'll be the only city in this entire sector."

"But we're still a baby," Avis said. "We won't be important for years to come. Who'd have it in for a baby?"

"Besides, we're Americans, too," Chung said. "If that were a foreign ship, the story might be different—Wait a minute! Could they be thinking of establishing a new base here?"

"The Convention wouldn't allow," said Blades.

"Treaties can always be renegotiated, or even denounced. But first you have to investigate quietly, find out if it's worth your while."

"Hoo hah, what lovely money that'd mean!"

"And lovely bureaucrats crawling out of every file cabinet," Chung said grimly. "No, thank you. We'll fight any such attempt to the last lawyer. We've got a good basis, too, in our charter. If the suit is tried on Ceres, as I believe it has to be, we'll get a sympathetic court as well."

"Unless they ring in an Earthside judge," Avis warned.

"Yeah, that's possible. Also, they could spring proceedings on us without notice. We've got to find out in advance, so we can prepare. Any chance of pumping some of those officers?"

"'Fraid not," Avis said. "The few who'd be in the know are safely back on shipboard."

"We could invite 'em here individually," said Blades. "As a matter of fact, I already have a date with Lieutenant Ziska."

"What?" Avis' mouth fell open.

"Yep," Blades said complacently. "End of the next watch, so she can observe the *Pallas* arriving. I'm to fetch her on a scooter." He blew a fat smoke ring. "Look, Jimmy, can you keep everybody off the porch for a while then? Starlight, privacy, soft music on the piccolo—who knows what I might find out?"

"You won't get anything from *her*," Avis spat. "No secrets or, or anything."

"Still, I look forward to making the attempt. C'mon, pal, pass the word. I'll do as much for you sometime."

"Times like that never seem to come for me," Chung groaned.

"Oh, let him play around with his suicide blonde," Avis said furiously. "We others have work to do. I ... I'll tell you what, Jimmy. Let's not eat in the mess tonight. I'll draw our rations and fix us something special in your cabin."



A scooter was not exactly the ideal steed for a knight to convey his lady. It amounted to little more than three saddles and a locker, set atop an accumulator-powered gyrogravitic engine, sufficient to lift you off an asteroid and run at low acceleration. There were no navigating instruments. You locked the autopilot's radar-gravitic sensors onto your target object and it took you there, avoiding any bits of debris which might pass near; but you must watch the distance indicator and press the deceleration switch in time. If the 'pilot was turned off, free maneuver became possible, but that was a dangerous thing to try before you were almost on top of your destination. Stereoscopic vision fails beyond six or seven meters, and the human organism isn't equipped to gauge cosmic momenta.

Nevertheless, Ellen was enchanted. "This is like a dream," her voice murmured in Blades' earplug. "The whole universe, on every side of us. I could almost reach out and pluck those stars."

"You must have trained in powered spacesuits at the Academy," he said for lack of a more poetic rejoinder.

"Yes, but that's not the same. We had to stay near Luna's night side, to be

safe from solar particles, and it bit a great chunk out of the sky. And then everything was so—regulated, disciplined—we did what we were ordered to do, and that was that. Here I feel free. You can't imagine how free." Hastily: "Do you use this machine often?"

"Well, yes, we have about twenty scooters at the Station. They're the most convenient way of flitting with a load: out to the mirrors to change accumulators, for instance, or across to one of the companion rocks where we're digging some ores that the Sword doesn't have. That kind of work." Blades would frankly rather have had her behind him on a motorskimmer, hanging on as they careened through a springtime countryside. He was glad when they reached the main forward air lock and debarked.

He was still gladder when the suits were off. Lieutenant Ziska in dress uniform was stunning, but Ellen in civvies, a fluffy low-cut blouse and close-fitting slacks, was a hydrogen blast. He wanted to roll over and pant, but settled for saying, "Welcome back" and holding her hand rather longer than necessary.

With a shy smile, she gave him a package. "I drew this before leaving," she said. "I thought, well, your life is so austere—"

"A demi of Sandeman," he said reverently. "I won't tell you you shouldn't have, but I will tell you you're a sweet girl."

"No, really." She flushed. "After we've put you to so much trouble."

"Let's go crack this," he said. "The *Pallas* has called in, but she won't be visible for a while yet."

They made their way to the verandah, picking up a couple of glasses enroute. Bless his envious heart, Jimmy had warned the other boys off as requested. *I hope Avis cooks him a Cordon Bleu dinner*, Blades thought. *Nice kid, Avis, if she'd quit trying to ... what? ... mother me?* He forgot about her, with Ellen to seat by the rail.

The Milky Way turned her hair frosty and glowed in her eyes. Blades poured the port with much ceremony and raised his glass. "Here's to your frequent return," he said.

Her pleasure dwindled a bit. "I don't know if I should drink to that. We aren't likely to be back, ever."

"Drink anyway. Gling, glang, gloria!" The rims tinkled together. "After all,"

said Blades, "this isn't the whole universe. We'll both be getting around. See you on Luna?"

"Maybe."

He wondered if he was pushing matters too hard. She didn't look at ease. "Oh, well," he said, "if nothing else, this has been a grand break in the monotony for us. I don't wish the Navy ill, but if trouble had to develop, I'm thankful it developed here."

"Yes—"

"How's the repair work progressing? Slowly, I hope."

"I don't know."

"You should have some idea, being in QM."

"No supplies have been drawn."

Blades stiffened.

"What's the matter?" Ellen sounded alarmed.

"Huh?" *A fine conspirator I make, if she can see my emotions on me in neon capitals!* "Nothing. Nothing. It just seemed a little strange, you know. Not taking any replacement units."

"I understand the work is only a matter of making certain adjustments."

"Then they should've finished a lot quicker, shouldn't they?"

"Please," she said unhappily. "Let's not talk about it. I mean, there are such things as security regulations."

Blades gave up on that tack. But Chung's idea might be worth probing a little. "Sure," he said. "I'm sorry, I didn't mean to pry." He took another sip as he hunted for suitable words. A beautiful girl, a golden wine ... and vice versa ... why couldn't he simply relax and enjoy himself? Did he have to go fretting about what was probably a perfectly harmless conundrum?... Yes. However, recreation might still combine with business.

"Permit me to daydream," he said, leaning close to her. "The Navy's going to establish a new base here, and the *Altair* will be assigned to it."

"Daydream indeed!" she laughed, relieved to get back to a mere flirtation. "Ever hear about the Convention of Vesta?"

"Treaties can be renegotiated," Blades plagiarized.

"What do we need an extra base for? Especially since the government plans to spend such large sums on social welfare. They certainly don't want to start an

arms race besides."

Blades nodded. *Jimmy's notion did seem pretty thin*, he thought with a slight chill, *and now I guess it's completely whiffed.* Mostly to keep the conversation going, he shrugged and said, "My partner—and me, too, aside from the privilege of your company—wouldn't have wanted it anyhow. Not that we're unpatriotic, but there are plenty of other potential bases, and we'd rather keep government agencies out of here."

"Can you, these days?"

"Pretty much. We're under a new type of charter, as a private partnership. The first such charter in the Belt, as far as I know, though there'll be more in the future. The Bank of Ceres financed us. We haven't taken a nickel of federal money."

"Is that possible?"

"Just barely. I'm no economist, but I can see how it works. Money represents goods and labor. Hitherto those have been in mighty short supply out here. Government subsidies made up the difference, enabling us to buy from Earth. But now the asterites have built up enough population and industry that they have some capital surplus of their own, to invest in projects like this."

"Even so, frankly, I'm surprised that two men by themselves could get such a loan. It must be huge. Wouldn't the bank rather have lent the money to some corporation?"

"To tell the truth, we have friends who pulled wires for us. Also, it was done partly on ideological grounds. A lot of asterites would like to see more strictly home-grown enterprises, not committed to anyone on Earth. That's the only way we can grow. Otherwise our profits—our net production, that is—will continue to be siphoned off for the mother country's benefit."

"Well," Ellen said with some indignation, "that was the whole reason for planting asteroid colonies. You can't expect us to set you up in business, at enormous cost to ourselves—things we might have done at home—and get nothing but 'Ta' in return."

"Never fear, we'll repay you with interest," Blades said. "But whatever we make from our own work, over and above that, ought to stay here with us."

She grew angrier. "Your kind of attitude is what provoked the voters to elect

Social Justice candidates."

"Nice name, that," mused Blades. "Who can be against social justice? But you know, I think I'll go into politics myself. I'll organize the North American Motherhood Party."

"You wouldn't be so flippant if you'd go see how people have to live back there."

"As bad as here? *Whew!*"

"Nonsense. You know that isn't true. But bad enough. And you aren't going to stick in these conditions. Only a few hours ago, you were bragging about the millions you intend to make."

"Millions *and* millions, if my strength holds out," leered Blades, thinking of the alley in Aresopolis. But he decided that that was then and Ellen was now, and what had started as a promising little party was turning into a dismal argument about politics.

"Let's not fight," he said. "We've got different orientations, and we'd only make each other mad. Let's discuss our next bottle instead ... at the Coq d'Or in Paris, shall we say? Or Morraine's in New York."

She calmed down, but her look remained troubled. "You're right, we are different," she said low. "Isolated, living and working under conditions we can hardly imagine on Earth—and you can't really imagine our problems—yes, you're becoming another people. I hope it will never go so far that—No. I don't want to think about it." She drained her glass and held it out for a refill, smiling. "Very well, sir, when do you next plan to be in Paris?"

An exceedingly enjoyable while later, the time came to go watch the *Pallas Castle* maneuver in. In fact, it had somehow gotten past that time, and they were late; but they didn't hurry their walk aft. Blades took Ellen's hand; and she raised no objection. Schoolboyish, no doubt—however, he had reached the reluctant conclusion that for all his dishonorable intentions, this affair wasn't likely to go beyond the schoolboy stage. Not that he wouldn't keep trying.

As they glided through the refining and synthesizing section, which filled the broad half of the asteroid, the noise of pumps and regulators rose until it throbbed in their bones. Ellen gestured at one of the pipes which crossed the corridor overhead. "Do you really handle that big a volume at a time?" she

asked above the racket.

"No," he said. "Didn't I explain before? The pipe's thick because it's so heavily armored."

"I'm glad you don't use that dreadful word 'cladded.' But why the armor? High pressure?"

"Partly. Also, there's an inertrans lining. Jupiter gas is hellishly reactive at room temperature. The metallic complexes especially; but think what a witch's brew the stuff is in every respect. Once it's been refined, of course, we have less trouble. That particular pipe is carrying it raw."

They left the noise behind and passed on to the approach control dome at the receptor end. The two men on duty glanced up and immediately went back to their instruments. Radio voices were staccato in the air. Blades led Ellen to an observation port.

She drew a sharp breath. Outside, the broken ground fell away to space and the stars. The ovoid that was the ship hung against them, lit by the hidden sun, a giant even at her distance but dwarfed by the balloon she towed. As that bubble tried ponderously to rotate, rainbow gleams ran across it, hiding and then revealing the constellations. Here, on the asteroid's axis, there was no weight, and one moved with underwater smoothness, as if disembodied. "Oh, a fairy tale," Ellen sighed.

Four sparks flashed out of the boat blisters along the ship's hull. "Scoopships," Blades told her. "They haul the cargo in, being so much more maneuverable. Actually, though, the mother vessel is going to park her load in orbit, while those boys bring in another one ... see, there it comes into sight. We still haven't got the capacity to keep up with our deliveries."

"How many are there? Scoopships, that is."

"Twenty, but you don't need more than four for this job. They've got terrific power. Have to, if they're to dive from orbit down into the Jovian atmosphere, ram themselves full of gas, and come back. There they go."

The *Pallas Castle* was wrestling the great sphere she had hauled from Jupiter into a stable path computed by Central Control. Meanwhile the scoopships, small only by comparison with her, locked onto the other balloon as it drifted close. Energy poured into their drive fields. Spiraling downward, transparent globe and four laboring spacecraft vanished behind the horizon. The

Pallas completed her own task, disengaged her towbars, and dropped from view, headed for the dock.

The second balloon rose again, like a huge glass moon on the opposite side of the Sword. Still it grew in Ellen's eyes, kilometer by kilometer of approach. So much mass wasn't easily handled, but the braking curve looked disdainfully smooth. Presently she could make out the scoopships in detail, elongated teardrops with the intake gates yawning in the blunt forward end, cockpit canopies raised very slightly above.

Instructions rattled from the men in the dome. The balloon veered clumsily toward the one free receptor. A derricklike structure released one end of a cable, which streamed skyward. Things that Ellen couldn't quite follow in this tricky light were done by the four tugs, mechanisms of their own extended to make their tow fast to the cable.

They did not cast loose at once, but continued to drag a little, easing the impact of centrifugal force. Nonetheless a slight shudder went through the dome as slack was taken up. Then the job was over. The scoopships let go and flitted off to join their mother vessel. The balloon was winched inward. Spacesuited men moved close, preparing to couple valves together.

"And eventually," Blades said into the abrupt quietness, "that cargo will become food, fabric, vitryl, plastiboard, reagents, fuels, a hundred different things. That's what we're here for."

"I've never seen anything so wonderful," Ellen said raptly. He laid an arm around her waist.

The intercom chose that precise moment to blare: "Attention! Emergency! All hands to emergency stations! Blades, get to Chung's office on the double! All hands to emergency stations!"

Blades was running before the siren had begun to howl.

Rear Admiral Barclay Hulse had come in person. He stood as if on parade, towering over Chung. The asterite was red with fury. Avis Page crouched in a corner, her eyes terrified.

Blades barreled through the doorway and stopped hardly short of a collision. "What's the matter?" he puffed.

"Plenty!" Chung snarled. "These incredible thumble-fumbed oafs—" His voice broke. *When he gets mad, it means something!*

Hulse nailed Blades with a glance. "Good day, sir," he clipped. "I have had to report a regrettable accident which will require you to evacuate the Station. Temporarily, I hope."

"Huh?"

"As I told Mr. Chung and Miss Page, a nuclear missile has escaped us. If it explodes, the radiation will be lethal, even in the heart of the asteroid."

"What ... what—" Blades could only gobble at him.

"Fortunately, the *Pallas Castle* is here. She can take your whole complement aboard and move to a safe distance while we search for the object."

"How the *devil*?"

Hulse allowed himself a look of exasperation. "Evidently I'll have to repeat myself to you. Very well. You know we have had to make some adjustments on our launchers. What you did not know was the reason. Under the circumstances, I think it's permissible to tell you that several of them have a new and secret, experimental control system. One of our missions on this cruise was to carry out field tests. Well, it turned out that the system is still full of, ah, bugs. Gunnery Command has had endless trouble with it, has had to keep tinkering the whole way from Earth.

"Half an hour ago, while Commander Warburton was completing a reassembly—lower ranks aren't allowed in the test turrets—something happened. I can't tell you my guess as to what, but if you want to imagine that a relay got stuck, that will do for practical purposes. A missile was released under power. Not a dummy—the real thing. And release automatically arms the war head."

The news was like a hammerblow. Blades spoke an obscenity. Sweat sprang forth under his arms and trickled down his ribs.

"No such thing was expected," Hulse went on. "It's an utter disaster, and the designers of the system aren't likely to get any more contracts. But as matters were, no radar fix was gotten on it, and it was soon too far away for gyrogravitic pulse detection. The thrust vector is unknown. It could be almost anywhere now.

"Well, naval missiles are programmed to reverse acceleration if they haven't made a target within a given time. This one should be back in less than

six hours. If it first detects our ship, everything is all right. It has optical recognition circuits that identify any North American warcraft by type, disarm the war head, and steer it home. But, if it first comes within fifty kilometers of some other mass—like this asteroid or one of the companion rocks—it will detonate. We'll make every effort to intercept, but space is big. You'll have to take your people to a safe distance. They can come back even after a blast, of course. There's no concussion in vacuum, and the fireball won't reach here. It's principally an anti-personnel weapon. But you must not be within the lethal radius of radiation."

"The hell we can come back!" Avis cried.



"I beg your pardon?" Hulse said.

"You imbecile! Don't you know Central Control here is cryotronic?"

Hulse did not flicker an eyelid. "So it is," he said expressionlessly. "I had forgotten."

Blades mastered his own shock enough to grate: "Well, we sure haven't. If that thing goes off, the gamma burst will kick up so many minority carriers in

the transistors that the *p*-type crystals will act *n*-type, and the *n*-type act *p*-type, for a whole couple of microseconds. Every one of 'em will flip simultaneously! The computers' memory and program data systems will be scrambled beyond hope of reorganization."

"Magnetic pulse, too," Chung said. "The fireball plasma will be full of inhomogeneities moving at several per cent of light speed. Their electromagnetic output, hitting our magnetic core units, will turn them from super to ordinary conduction. Same effect, total computer amnesia. We haven't got enough shielding against it. Your TIMM systems can take that kind of a beating. Ours can't!"

"Very regrettable," Hulse said. "You'd have to reprogram everything—"

"Reprogram what?" Avis retorted. Tears started forth in her eyes. "We've told you what sort of stuff our chemical plant is handling. We can't shut it down on that short notice. It'll run wild. There'll be sodium explosions, hydrogen and organic combustion, n-n-nothing left here but wreckage!"

Hulse didn't unbend a centimeter. "I offer my most sincere apologies. If actual harm does occur, I'm sure the government will indemnify you. And, of course, my command will furnish what supplies may be needed for the *Pallas Castle* to transport you to the nearest Commission base. At the moment, though, you can do nothing but evacuate and hope we will be able to intercept the missile."

Blades knotted his fists. A sudden comprehension rushed up in him and he bellowed, "There isn't going to be an interception! This wasn't an accident!"

Hulse backed a step and drew himself even straighter. "Don't get overwrought," he advised.

"You louse-bitten, egg-sucking, bloated faggot-porter! How stupid do you think we are? As stupid as your Essjay bosses? By heaven, we're staying! Then see if you have the nerve to murder a hundred people!"

"Mike ... Mike—" Avis caught his arm.

Hulse turned to Chung. "I'll overlook that unseemly outburst," he said. "But in light of my responsibilities and under the provisions of the Constitution, I am hereby putting this asteroid under martial law. You will have all personnel aboard the *Pallas Castle*and at a minimum distance of a thousand kilometers within four hours of this moment, or be subject to arrest and trial. Now I have to

get back and commence operations. The *Altair* will maintain radio contact with you. Good day." He bowed curtly, spun on his heel, and clacked from the room.

Blades started to charge after him. Chung caught his free arm. Together he and Avis dragged him to a stop. He stood cursing the air ultraviolet until Ellen entered.

"I couldn't keep up with you," she panted. "What's happened, Mike?"

The strength drained from Blades. He slumped into a chair and covered his face.

Chung explained in a few harsh words. "Oh-h-h," Ellen gasped. She went to Blades and laid her hands on his shoulders. "My poor Mike!"

After a moment she looked at the others. "I should report back, of course," she said, "but I won't be able to before the ship accelerates. So I'll have to stay with you till afterward. Miss Page, we left about half a bottle of wine on the verandah. I think it would be a good idea if you went and got it."

Avis bridled. "And why not you?"

"This is no time for personalities," Chung said. "Go on, Avis. You can be thinking what records and other paper we should take, while you're on your way. I've got to organize the evacuation. As for Miss Ziska, well, Mike needs somebody to pull him out of his dive."

"Her?" Avis wailed, and fled.

Chung sat down and flipped his intercom to Phone Central. "Get me Captain Janichevski aboard the *Pallas*," he ordered. "Hello, Adam? About that general alarm—"

Blades raised a haggard countenance toward Ellen's. "You better clear out, along with the women and any men who don't want to stay," he said. "But I think most of them will take the chance. They're on a profit-sharing scheme, they stand to lose too much if the place is ruined."

"What do you mean?"

"It's a gamble, but I don't believe Hulse's sealed orders extend to murder. If enough of us stay put, he'll have to catch that thing. He jolly well knows its exact trajectory."

"You forget we're under martial law," Chung said, aside to him. "If we don't go freely, he'll land some PP's and march us off at gunpoint. There isn't any

choice. We've had the course."

"I don't understand," Ellen said shakily.

Chung went back to his intercom. Blades fumbled out his pipe and rolled it empty between his hands. "That missile was shot off on purpose," he said.

"What? No, you must be sick, that's impossible!"

"I realize you didn't know about it. Only three or four officers have been told. The job had to be done very, very secretly, or there'd be a scandal, maybe an impeachment. But it's still sabotage."

She shrank from him. "You're not making sense."

"Their own story doesn't make sense. It's ridiculous. A new missile system wouldn't be sent on a field trial clear to the Belt before it'd had enough tests closer to home to get the worst bugs out. A war-head missile wouldn't be stashed anywhere near something so unreliable, let alone be put under its control. The testing ship wouldn't hang around a civilian Station while her gunnery chief tinkered. And Hulse, Warburton, Liebknecht, they were asking in *such* detail about how radiation-proof we are."

"I can't believe it. Nobody will."

"Not back home. Communication with Earth is so sparse and garbled. The public will only know there was an accident; who'll give a hoot about the details? We couldn't even prove anything in an asteroid court. The Navy would say, 'Classified information!' and that'd stop the proceedings cold. Sure, there'll be a board of inquiry—composed of naval officers. Probably honorable men, too. But what are they going to believe, the sworn word of their Goddard House colleague, or the rantings of an asterite bum?"

"Mike, I know this is terrible for you, but you've let it go to your head." Ellen laid a hand over his. "Suppose the worst happens. You'll be compensated for your loss."

"Yeah. To the extent of our personal investment. The Bank of Ceres still has nearly all the money that was put in. We didn't figure to have them paid off for another ten years. They, or their insurance carrier, will get the indemnity. And after our fiasco, they won't make us a new loan. They were just barely talked into it, the first time around. I daresay Systemic Developments will make them a nice juicy offer to take this job over."

Ellen colored. She stamped her foot. "You're talking like a paranoiac. Do

you really believe the government of North America would send a battleship clear out here to do you dirt?"

"Not the whole government. A few men in the right positions is all that's necessary. I don't know if Hulse was bribed or talked into this. But probably he agreed as a duty. He's the prim type."

"A duty—to destroy a North American business?"

Chung finished at the intercom in time to answer: "Not permanent physical destruction, Miss Ziska. As Mike suggested, some corporation will doubtless inherit the Sword and repair the damage. But a private, purely asterite business ... yes, I'm afraid Mike's right. We are the target."

"In mercy's name, why?"

"From the highest motives, of course," Chung sneered bitterly. "You know what the Social Justice Party thinks of private capitalism. What's more important, though, is that the Sword is the first Belt undertaking not tied to Mother Earth's apron strings. We have no commitments to anybody back there. We can sell our output wherever we like. It's notorious that the asterites are itching to build up their own self-sufficient industries. Quite apart from sentiment, we can make bigger profits in the Belt than back home, especially when you figure the cost of sending stuff in and out of Earth's gravitational well. So certainly we'd be doing most of our business out here.

"Our charter can't simply be revoked. First a good many laws would have to be revised, and that's politically impossible. There is still a lot of individualist sentiment in North America, as witness the fact that businesses do get launched and that the Essjays did have a hard campaign to get elected. What the new government wants is something like the Eighteenth Century English policy toward America. Keep the colonies as a source of raw materials and as a market for manufactured goods, but don't let them develop a domestic industry. You can't come right out and say that, but you can let the situation develop naturally.

"Only ... here the Sword is, obviously bound to grow rich and expand in every direction. If we're allowed to develop, to reinvest our profits, we'll become the nucleus of independent asterite enterprise. If, on the other hand, we're wiped out by an unfortunate accident, there's no nucleus; and a small change in

the banking laws is all that's needed to prevent others from getting started. Q.E.D."

"I daresay Hulse does think he's doing his patriotic duty," said Blades. "He wants to guarantee North America our natural resources—in the long run, maybe, our allegiance. If he has to commit sabotage, too bad, but it won't cost him any sleep."

"No!" Ellen almost screamed.

Chung sagged in his chair. "We're very neatly trapped," he said like an old man. "I don't see any way out. Think you can get to work now, Mike? You can assign group leaders for the evacuation—"

Blades jumped erect. "I can fight!" he growled.

"With what? Can openers?"

"You mean you're going to lie down and let them break us?"

Avis came back. She thrust the bottle into Blades' hands as he paced the room. "Here you are," she said in a distant voice.

He held it out toward Ellen. "Have some," he invited.

"Not with you ... you subversive!"

Avis brightened noticeably, took the bottle and raised it. "Then here's to victory," she said, drank, and passed it to Blades.

He started to gulp; but the wine was too noble, and he found himself savoring its course down his throat. *Why,* he thought vaguely, *do people always speak with scorn about Dutch courage? The Dutch have real guts. They fought themselves free of Spain and free of the ocean itself; when the French or Germans came, they made the enemy sea their ally—*

The bottle fell from his grasp. In the weak acceleration, it hadn't hit the floor when Avis rescued it. "Gimme that, you big butterfingers," she exclaimed. Her free hand clasped his arm. "Whatever happens, Mike," she said to him, "we're not quitting."

Still Blades stared beyond her. His fists clenched and unclenched. The noise of his breathing filled the room. Chung looked around in bewilderment; Ellen watched with waxing horror; Avis' eyes kindled.

"Holy smoking seegars," Blades whispered at last. "I really think we can swing it."

Captain Janichevski recoiled. "You're out of your skull!"

"Probably," said Blades. "Fun, huh?"

"You can't do this."

"We can try."

"Do you know what you're talking about? Insurrection, that's what. Quite likely piracy. Even if your scheme worked, you'd spend the next ten years in Rehab—at least."

"Maybe, provided the matter ever came to trial. But it won't."

"That's what you think. You're asking me to compound the felony, and misappropriate the property of my owners to boot." Janichevski shook his head. "Sorry, Mike. I'm sorry as hell about this mess. But I won't be party to making it worse."

"In other words," Blades replied, "you'd rather be party to sabotage. I'm proposing an act of legitimate self-defense."

"*If* there actually is a conspiracy to destroy the Station."

"Adam, you're a spaceman. You know how the Navy operates. Can you swallow that story about a missile getting loose by accident?"

Janichevski bit his lip. The sounds from outside filled the captain's cabin, voices, footfalls, whirr of machines and clash of doors, as the *Pallas Castle* readied for departure. Blades waited.

"You may be right," said Janichevski at length, wretchedly. "Though why Hulse should jeopardize his career—"

"He's not. There's a scapegoat groomed back home, you can be sure. Like some company that'll be debarred from military contracts for a while ... and get nice fat orders in other fields. I've kicked around the System enough to know how that works."

"If you're wrong, though ... if this is an honest blunder ... then you risk committing treason."

"Yeah. I'll take the chance."

"Not I. No. I've got a family to support," Janichevski said.

Blades regarded him bleakly. "If the Essjays get away with this stunt, what kind of life will your family be leading, ten years from now? It's not simply that we'll be high-class peons in the Belt. But tied hand and foot to a shortsighted government, how much progress will we be able to make? Other countries have colonies out here too, remember, and some of them are already giving their

people a freer hand than we've got. Do you want the Asians, or the Russians, or even the Europeans, to take over the asteroids?"

"I can't make policy."

"In other words, mama knows best. Believe, obey, anything put out by some bureaucrat who never set foot beyond Luna. Is that your idea of citizenship?"

"You're putting a mighty fine gloss on bailing yourself out!" Janichevski flared.

"Sure, I'm no idealist. But neither am I a slave," Blades hesitated. "We've been friends too long, Adam, for me to try bribing you. But if worst comes to worst, we'll cover for you ... somehow ... and if contrariwise we win, then we'll soon be hiring captains for our own ships and you'll get the best offer any spaceman ever got."

"No. Scram. I've work to do."

Blades braced himself. "I didn't want to say this. But I've already informed a number of my men. They're as mad as I am. They're waiting in the terminal. A monkey wrench or a laser torch makes a pretty fair weapon. We can take over by force. That'll leave you legally in the clear. But with so many witnesses around, you'll have to prefer charges against us later on."

Janichevski began to sweat.

"We'll be sent up," said Blades. "But it will still have been worth it."

"Is it really that important to you?"

"Yes. I admit I'm no crusader. But this is a matter of principle."

Janichevski stared at the big red-haired man for a long while. Suddenly he stiffened. "O.K. On that account, and no other, I'll go along with you."

Blades wobbled on his feet, near collapse with relief. "Good man!" he croaked.

"But I will not have any of my officers or crew involved."

Blades rallied and answered briskly, "You needn't. Just issue orders that my boys are to have access to the scoopships. They can install the equipment, jockey the boats over to the full balloons, and even couple them on."

Janichevski's fears had vanished once he made his decision, but now a certain doubt registered. "That's a pretty skilled job."

"These are pretty skilled men. It isn't much of a maneuver, not like making a Jovian sky dive."

"Well, O.K., I'll take your word for their ability. But suppose the *Altair* spots those boats moving around?"

"She's already several hundred kilometers off, and getting farther away, running a search curve which I'm betting my liberty—and my honor; I certainly don't want to hurt my own country's Navy—I'm betting that search curve is guaranteed not to find the missile in time. They'll spot the *Pallas* as you depart —oh, yes, our people will be aboard as per orders—but no finer detail will show in so casual an observation."

"Again, I'll take your word. What else can I do to help?"

"Nothing you weren't doing before. Leave the piratics to us. I'd better get back." Blades extended his hand. "I haven't got the words to thank you, Adam."

Janichevski accepted the shake. "No reason for thanks. You dragooned me." A grin crossed his face. "I must confess though, I'm not sorry you did."

Blades left. He found his gang in the terminal, two dozen engineers and rockjacks clumped tautly together.

"What's the word?" Carlos Odonaju shouted.

"Clear track," Blades said. "Go right aboard."

"Good. Fine. I always wanted to do something vicious and destructive," Odonaju laughed.

"The idea is to prevent destruction," Blades reminded him, and proceeded toward the office.

Avis met him in Corridor Four. Her freckled countenance was distorted by a scowl. "Hey, Mike, wait a minute," she said, low and hurriedly. "Have you seen La Ziska?"

"The leftenant? Why, no. I left her with you, remember, hoping you could calm her down."

"Uh-huh. She was incandescent mad. Called us a pack of bandits and—But then she started crying. Seemed to break down completely. I took her to your cabin and went back to help Jimmy. Only, when I checked there a minute ago, she was gone."

"What? Where?"

"How should I know? But that she-devil's capable of anything to wreck our chances."

"You're not being fair to her. She's got an oath to keep."

"All right," said Avis sweetly. "Far be it from me to prevent her fulfilling her obligations. Afterward she may even write you an occasional letter. I'm sure that'll brighten your Rehab cell no end."

"What can she do?" Blades argued, with an uneasy sense of whistling in the dark. "She can't get off the asteroid without a scooter, and I've already got Sam's gang working on all the scooters."

"Is there no other possibility? The radio shack?"

"With a man on duty there. That's out." Blades patted the girl's arm.

"O.K., I'll get back to work. But ... I'll be so glad when this is over, Mike!"

Looking into the desperate brown eyes, Blades felt a sudden impulse to kiss their owner. But no, there was too much else to do. Later, perhaps. He cocked a thumb upward. "Carry on."

Too bad about Ellen, he thought as he continued toward his office. *What an awful waste, to make a permanent enemy of someone with her kind of looks. And personality—Come off that stick, you clabberhead! She's probably the marryin' type anyway.*

In her shoes, though, what would I do? Not much; they'd pinch my feet. But —damnation, Avis is right. She's not safe to have running around loose. The radio shack? Sparks is not one of the few who've been told the whole story and co-opted into the plan. She could—

Blades cursed, whirled, and ran.

His way was clear. Most of the men were still in their dorms, preparing to leave. He traveled in huge low-gravity leaps.

The radio shack rose out of the surface near the verandah. Blades tried the door. It didn't budge. A chill went through him. He backed across the corridor and charged. The door was only plastiboard—

He hit with a thud and a grunt, and rebounded with a numbed shoulder. But it looked so easy for the cops on 3V!

No time to figure out the delicate art of forcible entry. He hurled himself against the panel, again and again, heedless of the pain that struck in flesh and bone. When the door finally, splinteringly gave way, he stumbled clear across the room beyond, fetched up against an instrument console, recovered his balance, and gaped.

The operator lay on the floor, swearing in a steady monotone. He had been efficiently bound with his own blouse and trousers, which revealed his predilection for maroon shorts with zebra stripes. There was a lump on the back of his head, and a hammer lay close by. Ellen must have stolen the tool and come in here with the thing behind her back. The operator would have had no reason to suspect her.

She had not left the sender's chair, not even while the door was under attack. Only a carrier beam connected the Sword with the *Altair*. She continued doggedly to fumble with dials and switches, trying to modulate it and raise the ship.

"Praises be ... you haven't had advanced training ... in radio," Blades choked. "That's ... a long-range set ... pretty special system—" He weaved toward her. "Come along, now."

She spat an unladylike refusal.

Theoretically, Blades should have enjoyed the tussle that followed. But he was in poor shape at the outset. And he was a good deal worse off by the time he got her pinioned.

"O.K.," he wheezed. "Will you come quietly?"

She didn't deign to answer, unless you counted her butting him in the nose. He had to yell for help to frog-march her aboard ship.

"*Pallas Castle* calling NASS *Altair*. Come in, *Altair*."

The great ovoid swung clear in space, among a million cold stars. The asteroid had dwindled out of sight. A radio beam flickered across emptiness. Within the hull, the crew and a hundred refugees sat jammed together. The air was thick with their breath and sweat and waiting.

Blades and Chung, seated by the transmitter, felt another kind of thickness, the pull of the internal field. Earth-normal weight dragged down every movement; the enclosed cabin began to feel suffocatingly small. *We'd get used to it again pretty quickly,* Blades thought. *Our bodies would, that is. But our own selves, tied down to Earth forever—no.*

The vision screen jumped to life. "NASS *Altair* acknowledging *Pallas Castle*," said the uniformed figure within.

"O.K., Charlie, go outside and don't let anybody else enter," Chung told his

own operator.

The spaceman gave him a quizzical glance, but obeyed. "I wish to report that evacuation of the Sword is now complete," Chung said formally.

"Very good, sir," the Navy face replied. "I'll inform my superiors."

"Wait, don't break off yet. We have to talk with your captain."

"Sir? I'll switch you over to—"

"None of your damned chains of command," Blades interrupted. "Get me Rear Admiral Hulse direct, toot sweet, or I'll eat out whatever fraction of you he leaves unchewed. This is an emergency. I've got to warn him of an immediate danger only he can deal with."

The other stared, first at Chung's obvious exhaustion, then at the black eye and assorted bruises, scratches, and bites that adorned Blades' visage. "I'll put the message through Channel Red at once, sir." The screen blanked.

"Well, here we go," Chung said. "I wonder how the food in Rehab is these days."

"Want me to do the talking?" Blades asked. Chung wasn't built for times as hectic as the last few hours, and was worn to a nubbin. He himself felt immensely keyed up. He'd always liked a good fight.

"Sure." Chung pulled a crumpled cigarette from his pocket and began to fill the cabin with smoke. "You have a larger stock of rudeness than I."



Presently the screen showed Hulse, rigid at his post on the bridge. "Good day, gentlemen," he said. "What's the trouble?"

"Plenty," Blades answered. "Clear everybody else out of there; let your ship orbit free a while. And seal your circuit."

Hulse reddened. "Who do you think you are?"

"Well, my birth certificate says Michael Joseph Blades. I've got some news for you concerning that top-secret gadget you told us about. You wouldn't want unauthorized personnel listening in."

Hulse leaned forward till he seemed about to fall through the screen. "What's this about a hazard?"

"Fact. The *Altair* is in distinct danger of getting blown to bits."

"Have you gone crazy? Get me the captain of the *Pallas*."

"Very small bits."

Hulse compressed his lips. "All right, I'll listen to you for a short time. You had better make it worth my while."

He spoke orders. Blades scratched his back while he waited for the bridge to be emptied and wondered if there was any chance of a hot shower in the near future.

"Done," said Hulse. "Give me your report."

Blades glanced at the telltale. "You haven't sealed your circuit, admiral."

Hulse said angry words, but complied. "Now will you talk?"

"Sure. This secrecy is for your own protection. You risk court-martial otherwise."

Hulse suppressed a retort.

"O.K., here's the word." Blades met the transmitted glare with an almost palpable crash of eyeballs. "We decided, Mr. Chung and I, that any missile rig as haywire as yours represents a menace to navigation and public safety. If you can't control your own nuclear weapons, you shouldn't be at large. Our charter gives us local authority as peace officers. By virtue thereof and so on and so forth, we ordered certain precautionary steps taken. As a result, if that war head goes off, I'm sorry to say that NASS*Altair* will be destroyed."

"Are you ... have you—" Hulse congealed. In spite of everything, he was a competent officer, Blades decided. "Please explain yourself," he said without tone.

"Sure," Blades obliged. "The Station hasn't got any armament, but trust the human race to juryrig that. We commandeered the scoopships belonging to this vessel and loaded them with Jovian gas at maximum pressure. If your missile detonates, they'll dive on you."

Something like amusement tinged Hulse's shocked expression. "Do you seriously consider that a weapon?"

"I seriously do. Let me explain. The ships are orbiting free right now, scattered through quite a large volume of space. Nobody's aboard them. What is aboard each one, though, is an autopilot taken from a scooter, hooked into the drive controls. Each 'pilot has its sensors locked onto your ship. You can't maneuver fast enough to shake off radar beams and mass detectors. You're the target object, and there's nothing to tell those idiot computers to decelerate as they approach you.

"Of course, no approach is being made yet. A switch has been put in every

scooter circuit, and left open. Only the meteorite evasion units are operative right now. That is, if anyone tried to lay alongside one of those scoopships, he'd be detected and the ship would skitter away. Remember, a scoopship hasn't much mass, and she does have engines designed for diving in and out of Jupe's gravitational well. She can out-accelerate either of our vessels, or any boat of yours, and out-dodge any of your missiles. You can't catch her."

Hulse snorted. "What's the significance of this farce?"

"I said the autopilots were switched off at the moment, as far as heading for the target is concerned. But each of those switches is coupled to two other units. One is simply the sensor box. If you withdraw beyond a certain distance, the switches will close. That is, the 'pilots will be turned on if you try to go beyond range of the beams now locked onto you. The other unit we've installed in every boat is an ordinary two-for-a-dollar radiation meter. If a nuclear weapon goes off, anywhere within a couple of thousand kilometers, the switches will also close. In either of those cases, the scoopships will dive on you.

"You might knock out a few with missiles, before they strike. Undoubtedly you can punch holes in them with laser guns. But that won't do any good, except when you're lucky enough to hit a vital part. Nobody's aboard to be killed. Not even much gas will be lost, in so short a time.

"So to summarize, chum, if that rogue missile explodes, your ship will be struck by ten to twenty scoopships, each crammed full of concentrated Jovian air. They'll pierce that thin hull of yours, but since they're already pumped full beyond the margin of safety, the impact will split them open and the gas will whoosh out. Do you know what Jovian air does to substances like magnesium?

"You can probably save your crew, take to the boats and reach a Commission base. But your nice battleship will be *ganz kaput*. Is your game worth that candle?"

"You're totally insane! Releasing such a thing—"

"Oh, not permanently. There's one more switch on each boat, connected to the meteorite evasion unit and controlled by a small battery. When those batteries run down, in about twenty hours, the 'pilots will be turned off completely. Then we can spot the scoopships by radar and pick 'em up. And you'll be free to leave."

"Do you think for one instant that your fantastic claim of acting legally will

stand up in court?"

"No, probably not. But it won't have to. Obviously you can't make anybody swallow your yarn if a *second* missile gets loose. And as for the first one, since it's failed in its purpose, your bosses aren't going to want the matter publicized. It'd embarrass them to no end, and serve no purpose except revenge on Jimmy and me—which there's no point in taking, since the Sword would still be privately owned. You check with Earth, admiral, before shooting off your mouth. They'll tell you that both parties to this quarrel had better forget about legal action. Both would lose.

"So I'm afraid your only choice is to find that missile before it goes off."

"And yours? What are your alternatives?" Hulse had gone gray in the face, but he still spoke stoutly.

Blades grinned at him. "None whatsoever. We've burned our bridges. We can't do anything about those scoopships now, so it's no use trying to scare us or arrest us or whatever else may occur to you. What we've done is establish an automatic deterrent."

"Against an, an attempt ... at sabotage ... that only exists in your imagination!"

Blades shrugged. "That argument isn't relevant any longer. I do believe the missile was released deliberately. We wouldn't have done what we did otherwise. But there's no longer any point in making charges and denials. You'd just better retrieve the thing."

Hulse squared his shoulders. "How do I know you're telling the truth?"

"Well, you can send a man to the Station. He'll find the scooters lying gutted. Send another man over here to the *Pallas*. He'll find the scoopships gone. I also took a few photographs of the autopilots being installed and the ships being cast adrift. Go right ahead. However, may I remind you that the fewer people who have an inkling of this little intrigue, the better for all concerned."

Hulse opened his mouth, shut it again, stared from side to side, and finally slumped the barest bit. "Very well," he said, biting off the words syllable by syllable. "I can't risk a ship of the line. Of course, since the rogue is still farther away than your deterrent allows the *Altair* to go, we shall have to wait in space a while."

"I don't mind."

"I shall report the full story to my superiors at home ... but unofficially."

"Good. I'd like them to know that we asterites have teeth."

"Signing off, then."

Chung stirred. "Wait a bit," he said. "We have one of your people aboard, Lieutenant Ziska. Can you send a gig for her?"

"She didn't collaborate with us," Blades added. "You can see the evidence of her loyalty, all over my mug."

"Good girl!" Hulse exclaimed savagely. "Yes, I'll send a boat. Signing off."

The screen blanked. Chung and Blades let out a long, ragged breath. They sat a while trembling before Chung muttered, "That skunk as good as admitted everything."

"Sure," said Blades, "But we won't have any more trouble from him."

Chung stubbed out his cigarette. Poise was returning to both men. "There could be other attempts, though, in the next few years." He scowled. "I think we should arm the Station. A couple of laser guns, if nothing else. We can say it's for protection in case of war. But it'll make our own government handle us more carefully, too."

"Well, you can approach the Commission about it." Blades yawned and stretched, trying to loosen his muscles. "Better get a lot of other owners and supervisors to sign your petition, though." The next order of business came to his mind. He rose. "Why don't you go tell Adam the good news?"

"Where are you bound?"

"To let Ellen know the fight is over."

"Is it, as far as she's concerned?"

"That's what I'm about to find out. Hope I won't need an armored escort." Blades went from the cubicle, past the watchful radioman, and down the deserted passageway beyond.

The cabin given her lay at the end, locked from outside. The key hung magnetically on the bulkhead. Blades unlocked the door and tapped it with his knuckles.

"Who's there?" she called.

"Me," he said. "May I come in?"

"If you must," she said freezingly.

He opened the door and stepped through. The overhead light shimmered off her hair and limned her figure with shadows. His heart bumped. "You, uh, you can come out now," he faltered. "Everything's O.K."

She said nothing, only regarded him from glacier-blue eyes.

"No harm's been done, except to me and Sparks, and we're not mad," he groped. "Shall we forget the whole episode?"

"If you wish."

"Ellen," he pleaded, "I had to do what seemed right to me."

"So did I."

He couldn't find any more words.

"I assume that I'll be returned to my own ship," she said. He nodded. "Then, if you will excuse me, I had best make myself as presentable as I can. Good day, Mr. Blades."

"What's good about it?" he snarled, and slammed the door on his way out.

Avis stood outside the jampacked saloon. She saw him coming and ran to meet him. He made swab-O with his fingers and joy blazed from her. "Mike," she cried, "I'm so happy!"

The only gentlemanly thing to do was hug her. His spirits lifted a bit as he did. She made a nice armful. Not bad looking, either.

"Well," said Amspaugh. "So that's the inside story. How very interesting. I never heard it before."

"No, obviously it never got into any official record," Missy said. "The only announcement made was that there'd been a near accident, that the Station tried to make counter-missiles out of scoopships, but that the quick action of NASS *Altair* was what saved the situation. Her captain was commended. I don't believe he ever got a further promotion, though."

"Why didn't you publicize the facts afterwards?" Lindgren wondered. "When the revolution began, that is. It would've made good propaganda."

"Nonsense," Missy said. "Too much else had happened since then. Besides, neither Mike nor Jimmy nor I wanted to do any cheap emotion-fanning. We knew the asterites weren't any little pink-bottomed angels, nor the people back sunward a crew of devils. There were rights and wrongs on both sides. We did

what we could in the war, and hated every minute of it, and when it was over we broke out two cases of champagne and invited as many Earthsiders as we could get to the party. They had a lot of love to carry home for us."

A stillness fell. She took a long swallow from her glass and sat looking out at the stars.

"Yes," Lindgren said finally, "I guess that was the worst, fighting against our own kin."

"Well, I was better off in that respect than some," Missy conceded. "I'd made my commitment so long before the trouble that my ties were nearly all out here. Twenty years is time enough to grow new roots."

"Really?" Orloff was surprised. "I haven't met you often before, Mrs. Blades, so evidently I've had a false impression. I thought you were a more recent immigrant than that."

"Shucks, no," she laughed. "I only needed six months after the *Altair* incident to think things out, resign my commission and catch the next Belt-bound ship. You don't think I'd have let a man like Mike get away, do you?"

THE COLORS OF SPACE



by Marion Zimmer Bradley

SUDDEN PANIC

It was a week before the Lhari ship went into warp-drive, and all that time young Bart Steele had stayed in his cabin. He was so bored with his own company that the Mentorian medic was a welcome sight when he came to prepare him for *cold-sleep*.

The Mentorian paused, needle in hand. "Do you wish to be wakened for the time we shall spend in each of the three star systems, sir? You can, of course, be given enough drug to keep you in cold-sleep until we reach your destination."

Bart felt tempted—he wanted very much to see the other star systems. But he couldn't risk meeting other passengers.

The needle went into his arm. In sudden panic, he realized he was helpless. The ship would touch down on three worlds, and on any of them the Lhari might have his description, or his alias! He could be taken off, unconscious, and might never wake up! He tried to move, to protest, but he couldn't. There was a freezing moment of intense cold and then nothing....

CHAPTER ONE

The Lhari spaceport didn't belong on Earth.

Bart Steele had thought that, a long time ago, when he first saw it. He had been just a kid then; twelve years old, and all excited about seeing Earth for the first time—Earth, the legendary home of mankind before the Age of Space, the planet of Bart's far-back ancestors. And the first thing he'd seen on Earth, when he got off the starship, was the Lhari spaceport.

And he'd thought, right then, *It doesn't belong on Earth.*

He'd said so to his father, and his father's face had gone strange, bitter and remote.

"A lot of people would agree with you, Son," Captain Rupert Steele had said softly. "The trouble is, if the Lhari spaceport wasn't on Earth, we wouldn't be on Earth either. Remember that."

Bart remembered it, five years later, as he got off the strip of moving sidewalk. He turned to wait for Tommy Kendron, who was getting his baggage off the center strip of the moving roadway. Bart Steele and Tommy Kendron had graduated together, the day before, from the Space Academy of Earth. Now Tommy, who had been born on the ninth planet of the star Capella, was taking the Lhari starship to his faraway home, and Bart's father was coming back to Earth, on the same starship, to meet his son.

Five years, Bart thought. *That's a long time. I wonder if Dad will know me?*

"Let me give you a hand with that stuff, Tommy."

"I can manage," Tommy chuckled, hefting the plastic cases. "They don't allow you much baggage weight on the Lhari ships. Certainly not more than I can handle."

The two lads stood in front of the spaceport gate for a minute. Over the gate, which was high and pointed and made of some clear colorless material like glass, was a jagged symbol resembling a flash of lightning; the sign, in Lhari language, for the home world of the Lhari.

They walked through the pointed glass gate, and stood for a moment, by mutual consent, looking down over the vast expanse of the Lhari spaceport.

This had once been a great desert. Now it was all floored in with some strange substance that was neither glass, metal nor concrete; it looked like

gleaming crystal—though it felt soft underfoot—and in the glare of the noonday sun, it gave back the glare in a million rainbow flashes. Tommy put his hands up to his eyes to shield them. "The Lhari must have funny eyes, if they can stand all this glare!"

Inside the glass gate, a man in a guard's uniform gave them each a pair of dark glasses. "Put them on now, boys. And don't look directly at the ship when it lands."

Tommy hooked the earpieces of the dark glasses over his ears, and sighed with relief. Bart frowned, but finally put them on. Bart's mother had been a Mentorian—from the planet Mentor, of the star Deneb, a hundred times brighter than the sun. Bart had her eyes. But Mentorians weren't popular on Earth, and Bart had learned to be quiet about his mother.

Through the dark lenses, the glare was only a pale gleam. Far out in the very center of the spaceport, a high, clear-glass skyscraper rose, catching the sunlight in a million colors. Around the building, small copters and robotcabs veered, discharging passengers; and the moving sidewalks were crowded with people coming and going. Here and there in the crowd, standing out because of their height and the silvery metallic cloaks they wore, were the strange tall figures of the Lhari.

"Well, how about going down?" Tommy glanced impatiently at his timepiece. "Less than half an hour before the starship touches down."

"All right. We can get a sidewalk over here." Reluctantly, Bart tore his eyes from the fascinating spectacle, and followed Tommy, stepping onto one of the sidewalks. It bore them down a long, sloping ramp toward the floor of the spaceport, then sped toward the glass skyscraper; came to rest at the wide pointed doors, depositing them in the midst of the crowd. The jagged lightning flash was there over the doors of the building, and the words:

here, by grace of the Lhari, is the doorway to all the stars.

Bart remembered, as if it were yesterday, how he and his father had first passed through this doorway. And his father, looking up, had said under his breath "Not for always, Son. Someday men will have a doorway to the stars, and the Lhari won't be standing in the door."

Inside the building, it was searingly bright. The high open rotunda was filled with immense mirrors, and glass ramps running up and down, moving

staircases, confusing signs and flashing lights on tall oddly shaped pillars. The place was crowded with men from all over the planet, but the dark glasses they all wore gave them a strange sort of family resemblance.

Tommy said, "I'd better check my reservations."

Bart nodded. "Meet you on the upper level later," he said, and got on a moving staircase that soared slowly upward, past level after level, toward the information desk located on the topmost mezzanine.

The staircase moved slowly, and Bart had plenty of time to see everything. On the step immediately in front of him, two Lhari were standing; with their backs turned, they might almost have been men. Unusually tall, unusually thin, but men. Then Bart amended that mentally. The Lhari had two arms, two legs and a head apiece—they were that much like men. Their faces had two eyes, two ears, and a nose and mouth, all in the right places. But the similarity ended there.

They had skin of a curious pale silvery gray, and pale, pure-white hair rising in what looked like a feathery crest. The eyes were long and slanting, the forehead high and narrow, the nose delicately thin and chiseled with long vertically slit nostrils, the ears long, pointed and lobeless. The mouth looked almost human, though the chin was abnormally pointed. The hands would almost have passed inspection as human hands—except for the long, triangular nails curved over the fingertips like the claws of a cat. They wore skin-tight clothes of some metallic silky stuff, and long flowing gleaming silvery capes. They looked unearthly, elfin and strange, and in their own way they were beautiful.

The two Lhari in front of Bart had been talking softly, in their fast twittering speech; but as the hum of the crowds on the upper levels grew louder, they raised their voices, and Bart could hear what they were saying. He was a little surprised to find that he could still understand the Lhari language. He hadn't heard a word of it in years—not since his Mentorian mother died. The Lhari would never guess that he could understand their speech. Not one human in a million could speak or understand a dozen words of Lhari, except the Mentorians.

"Do you really think that *human*—" the first Lhari spoke the word as if it were a filthy insult—"will have the temerity to come in by this ship?"

"No reasonable being can tell what *humans* will do," said the second Lhari. "But then, no reasonable being can tell what our own Port Authorities will do either! If the message had only reached us sooner, it would have been easier. Now I suppose it will have to clear through a dozen officials and a dozen different kinds of formalities."

The younger Lhari sounded angry. "And we have only a description—no name, nothing! How do they expect us to do anything under those conditions? What I can't understand is how it ever happened, or how the man managed to get away. What worries me is the possibility that he may have communicated with others we don't know about. Those bungling fools who let the first man get away can't even be sure—"

"Do not speak of it here," said the old Lhari sharply. "There are Mentorians in the crowd who might understand us." He turned and looked straight at Bart, and Bart felt as if the slanted strange eyes were looking right through to his bones. The Lhari said, in Universal, "Who are you, boy? What iss your businesssses here?"

Bart replied in the same language, politely, "My father's coming in on this ship. I'm looking for the information desk."

"Up there," said the old Lhari, pointing with a clawed hand, and lost interest in Bart. He said to his companion, in their own language, "Always, I regret these episodes. I have no malice against humans. I suppose even this Vegan that we are seeking has young, and a mate, who will regret his loss."

"Then he should not have pried into Lhari matters," said the younger Lhari fiercely. "If they'd killed him right away—"

The soaring staircase swooped up to the top level; the two Lhari stepped off and mingled swiftly with the crowd, being lost to sight. Bart whistled in dismay as he got off and turned toward the information desk. A Vegan! Some poor guy from his own planet was in trouble with the Lhari. He felt a cold, crawling chill down his insides. The Lhari had spoken regretfully, but the way they'd speak of a fly they couldn't manage to swat fast enough. Sooner or later you had to get down to it, they just weren't human!

Here on Earth, nothing much could happen, of course. They wouldn't let the Lhari hurt anyone—then Bart remembered his course in Universal Law. The Lhari spaceport in every system, by treaty, was Lhari territory. Once you walked

beneath the lightning-flash sign, the authority of the planet ceased to function; you might as well be on that unbelievably remote world in another galaxy that was the Lhari home planet—that world no human had ever seen. On a Lhari spaceport, or on a Lhari ship, you were under the jurisdiction of Lhari law.

Tommy stepped off a moving stair and joined him. "The ship's on time—it reported past Luna City a few minutes ago. I'm thirsty—how about a drink?"

There was a refreshment stand on this level; they debated briefly between orange juice and a drink with a Lhari name that meant simply *cold sweet*, and finally decided to try it. The name proved descriptive; it was very cold, very sweet and indescribably delicious.

"Does this come from the Lhari world, I wonder?"

"I imagine it's synthetic," Bart said.

"I suppose it won't *hurt* us?"

Bart laughed. "They wouldn't serve it to us if it would. No, men and Lhari are alike in a lot of ways. They breathe the same air. Eat about the same food." Their bodies were adjusted to about the same gravity. They had the same body chemistry—in fact, you couldn't tell Lhari blood from human, even under a microscope. And in the terrible Orion Spaceport wreck sixty years ago, doctors had found that blood plasma from humans could be used for wounded Lhari, and vice versa, though it wasn't safe to transfuse whole blood. But then, even among humans there were five blood types.

And yet, for all their likeness, they were *different*.

Bart sipped the cold Lhari drink, seeing himself in the mirror behind the refreshment stand; a tall teen-ager, looking older than his seventeen years. He was lithe and well muscled from five years of sports and acrobatics at the Space Academy, he had curling red hair and gray eyes, and he was almost as tall as a Lhari.

Will Dad know me? I was just a little kid when he left me here, and now I'm grown-up.

Tommy grinned at him in the mirror. "What are you going to do, now we've finished our so-called education?"

"What do you think? Go back to Vega with Dad, by Lhari ship, and help him run Vega Interplanet. Why else would I bother with all that astrogation and math?"

"You're the lucky one, with your father owning a dozen ships! He must be almost as rich as the Lhari."

Bart shook his head. "It's not that easy. Space travel inside a system these days is small stuff; all the real travel and shipping goes to the Lhari ships."

It was a sore point with everyone. Thousands of years ago, men had spread out from Earth—first to the planets, then to the nearer stars, crawling in ships that could travel no faster than the speed of light. They had even believed that was an absolute limit—that nothing in the universe could exceed the speed of light. It took years to go from Earth to the nearest star.

But they'd done it. From the nearer stars, they had sent out colonizing ships all through the galaxy. Some vanished and were never heard from again, but some made it, and in a few centuries man had spread all over hundreds of star-systems.

And then man met the people of the Lhari.

It was a big universe, with measureless millions of stars, and plenty of room for more than two intelligent civilizations. It wasn't surprising that the Lhari, who had only been traveling space for a couple of thousand years themselves, had never come across humans before. But they had been delighted to meet another intelligent race—and it was extremely profitable.

Because men were still held, mostly, to the planets of their own star-systems. Ships traveling between the stars by light-drive were rare and ruinously expensive. But the Lhari had the warp-drive, and almost overnight the whole picture changed. By warp-drive, hundreds of times faster than light at peak, the years-long trip between Vega and Earth, for instance, was reduced to about three months, at a price anyone could pay. Mankind could trade and travel all over their galaxy, but they did it on Lhari ships. The Lhari had an absolute, unbreakable monopoly on star travel.

"That's what hurts," Tommy said. "It wouldn't do us any good to have the star-drive. Humans can't stand faster-than-light travel, except in cold-sleep."

Bart nodded. The Lhari ships traveled at normal speeds, like the regular planetary ships, inside each star-system. Then, at the borders of the vast gulf of emptiness between stars, they went into warp-drive; but first, every human on board was given the cold-sleep treatment that placed them in suspended animation, allowing their bodies to endure the warp-drive.

He finished his drink. The increasing bustle in the crowds below them told him that time must be getting short. A tall, impressive-looking Lhari strode through the crowd, followed at a respectful distance by two Mentorians, tall, redheaded humans wearing metallic cloaks like those of the Lhari. Tommy nudged Bart, his face bitter.

"Look at those lousy Mentorians! How can they do it? Fawning upon the Lhari that way, yet they're as human as we are! *Slaves* of the Lhari!"

Bart felt the involuntary surge of anger, instantly controlled. "It's not that way at all. My mother was a Mentorian, remember. She made five cruises on a Lhari ship before she married my father."

Tommy sighed. "I guess I'm just jealous—to think the Mentorians can sign on the Lhari ship as crew, while you and I will never pilot a ship between the stars. What did she do?"

"She was a mathematician. Before the Lhari met up with men, they used a system of mathematics as clumsy as the old Roman numerals. You have to admire them, when you realize that they learned stellar navigation with their old system, though most ships use human math now. And of course, you know their eyes aren't like ours. Among other things, they're color-blind. They see everything in shades of black or white or gray.

"So they found out that humans aboard their ships were useful. You remember how humans, in the early days in space, used certain birds, who were more sensitive to impure air than they were. When the birds keeled over, they could tell it was time for humans to start looking over the air systems! The Lhari use Mentorians to identify colors for them. And, since Mentor was the first planet of humans that the Lhari had contact with, they've always been closer to them."

Tommy looked after the two Mentorians enviously. "The fact is, I'd ship out with the Lhari myself if I could. Wouldn't you?"

Bart's mouth twisted in a wry smile. "No," he said. "I could—I'm half Mentorian, I can even speak Lhari."

"Why don't you? I would."

"Oh, no, you wouldn't," Bart said softly. "Not even very many Mentorians will. You see, the Lhari don't trust humans too much. In the early days, men were always planting spies on Lhari ships, to try and steal the secret of warp-

drive. They never managed it, but nowadays the Lhari give all the Mentorians what amounts to a brainwashing—deep hypnosis, before and after every voyage, so that they can neither look for anything that might threaten the Lhari monopoly of space, nor reveal it—even under a truth drug—if they find it out.

"You have to be pretty fanatical about space travel to go through that. Oh, my mother could tell us a lot of things about her cruises with the Lhari. The Lhari can't tell a diamond from a ruby, except by spectrographic analysis, for instance. And she—"

A high gong note sounded somewhere, touching off an explosion of warning bells and buzzers all over the enormous building. Bart looked up.

"The ship must be coming in to land."

"I'd better check into the passenger side," Tommy said. He stuck out his hand. "Well, Bart, I guess this is where we say good-bye."

They shook hands, their eyes meeting for a moment in honest grief. In some indefinable way, this parting marked the end of their boyhood.

"Good luck, Tom. I'm going to miss you."

They wrung each other's hands again, hard. Then Tommy picked up his luggage and started down a sloping ramp toward an enclosure marked TO PASSENGER ENTRANCE.

Warning bells rang again. The glare intensified until the glow in the sky was unendurable, but Bart looked anyhow, making out the strange shape of the Lhari ship from the stars.

It was huge and strange, glowing with colors Bart had never seen before. It settled down slowly, softly: enormous, silent, vibrating, glowing; then swiftly faded to white-hot, gleaming blue, dulling down through the visible spectrum to red. At last it was just gleaming glassy Lhari-metal color again. High up in the ship's side a yawning gap slid open, extruding stairsteps, and men and Lhari began to descend.

Bart ran down a ramp and surged out on the field with the crowd. His eyes, alert for his father's tall figure, noted with surprise that the ship's stairs were guarded by four cloaked Lhari, each with a Mentorian interpreter. They were stopping each person who got off the starship, asking for identity papers. Bart realized he was seeing another segment of the same drama he had overheard discussed, and wished he knew what it was all about.

The crowd was thinning now. Robotcabs were swerving in, hovering above the ground to pick up passengers, then veering away. The gap in the starship's side was closing, and still Bart had not seen the tall, slim, flame-haired figure of his father. The port on the other side of the ship, he knew, was for loading passengers. Bart moved carefully through the thinning crowd, almost to the foot of the stairs. One of the Lhari checking papers stopped and fixed him with an inscrutable gray stare, but finally turned away again.

Bart began really to worry. Captain Steele would never miss his ship! But he saw only one disembarking passenger who had not yet been surrounded by a group of welcoming relatives, or summoned a robotcab and gone. The man was wearing Vegan clothes, but he wasn't Bart's father. He was a fat little man, with ruddy cheeks and a fringe of curling gray hair all around his bald dome. *Maybe he'd know if there was another Vegan on the ship.*

Then Bart realized that the little fat man was staring straight at him. He returned the man's smile, rather hesitantly; then blinked, for the fat man was coming straight toward him.

"Hello, Son," the fat man said loudly. Then, as two of the Lhari started toward him, the strange man did an incredible thing. He reached out his two hands and grabbed Bart.

"Well, boy, you've sure grown," he said, in a loud, cheerful voice, "but you're not too grown-up to give your old Dad a good hug, are you?" He pulled Bart roughly into his arms. Bart started to pull away and stammer that the fat man had made a mistake, but the pudgy hand gripped his wrist with unexpected strength.

"Bart, listen to me," the stranger whispered, in a harsh fast voice. "Go along with this or we're both dead. See those two Lhari watching us? Call me Dad, good and loud, if you want to live. Because, believe me, your life's in danger—right now!"

CHAPTER TWO

For a moment, pulled off balance in the fat stranger's hug, Bart remained perfectly still, while the man repeated in that loud, jovial voice, "How you've grown!" He let him go, stepping away a pace or two, and whispered urgently, "Say something. And take that stupid look off your face."

As he stepped back, Bart saw his eyes. In the chubby, good-natured red face, the stranger's eyes were half-mad with fear.

In a split second, Bart remembered the two Lhari and their talk of a fugitive. In that moment, Bart Steele grew up.

He stepped toward the man and took him quickly by the shoulders.

"Dad, you sure surprised me," he said, trying to keep his voice from shaking. "Been such a long time, I'd—half forgotten what you looked like. Have a good trip?"

"About like always." The fat man was breathing hard, but his voice sounded firm and cheerful. "Can't compare with a trip on the old *Asterion* though." The *Asterion* was the flagship of Vega Interplanet, Rupert Steele's own ship. "How's everything?"

Beads of sweat were standing out on the man's ruddy forehead, and his grip on Bart's wrist was so hard it hurt. Bart, grasping at random for something to say, gabbled, "Too bad you couldn't get to my graduation. I made th-third in a class of four hundred—"

The Lhari had surrounded them and were closing in.

The fat man took a deep breath or two, said, "Just a minute, Son," and turned around. "You want something?"

The tallest of the Lhari—the old one, whom Bart had seen on the escalator—looked long and hard at him. When they spoke Universal, their voices were sibilant, but not nearly so inhuman.

"Could we trrrouble you to sssshow us your paperrrssss?"

"Certainly." Nonchalantly, the fat man dug them out and handed them over. Bart saw his father's name printed across the top.

The Lhari gestured to a Mentorian interpreter: "What colorrr isss thisss man's hairrr?"

The Mentorian said in the Lhari language, "His hair is *gray*." He used the

Universal word; there were, of course, no words for colors in the Lhari speech.

"The man we sssseek has hair of *red*," said the Lhari. "And he isss tall, not fat."

"The boy is tall and with *red* hair," the Mentorian volunteered, and the old Lhari made a gesture of disdain.

"This boy is twenty years younger than the man whose description came to us. Why did they not give us a picture or at least a name?" He turned to the other Lhari and said in their own shrill speech, "I suspected this man because he was alone. And I had seen this boy on the upper mezzanine and spoken with him. We watched him, knowing sooner or later the father would seek him. Ask him." He gestured and the Mentorian said, "Who is this man, you?"

Bart gulped. For the first time he noted the energon-ray shockers at the belts of the four Lhari. He'd heard about those. They could stun—or they could kill, and quite horribly. He said, "This is my father. You want my cards, too?" He hauled out his identity papers. "My name's Bart Steele."

The Lhari, with a gesture of disgust, handed them back. "Go, then, father and son," he said, not unkindly.

"Let's get going, Son," said the little bald man. His hand shook on Bart's, and Bart thought, *If we're lucky, we can get out of the port before he faints dead away.* He said "I'll get a copter," and then, feeling sorry for the stranger, gave him his arm to lean on. He didn't know whether he was worried or scared. *Where was his father?* Why did this man have his dad's papers? Was his father hiding inside the Lhari ship? He wanted to run, to burst away from the imposter, but the guy was shaking so hard Bart couldn't just leave him standing there. If the Lhari got him, he was a dead duck.

A copter swooped down, the pilot signaling. The little man said hoarsely, "No. Robotcab."

Bart waved the copter away, getting a dirty look from the pilot, and punched a button at the stand for one of the unmanned robotcabs. It swung down, hovered motionless. Bart boosted the fat man in. Inside, the man collapsed on the seat, leaning back, puffing, his hand pressed hard to his chest.

"Punch a combo for Denver," he said hoarsely.

Bart obeyed, automatically. Then he turned on the man.

"It's your game, mister! Now tell me what's going on? *Where's my father?*"

The man's eyes were half-shut. He said, gasping, "Don't ask me any questions for a minute." He thumbed a tablet into his mouth, and presently his breathing quieted.

"We're safe—for the minute. Those Lhari would have cut us down."

"You, maybe. I haven't done anything. Look, you," Bart said in sudden rage, "you owe me some explanations. For all I know, you're a criminal and the Lhari have every right to chase you! Why have you got my father's papers? Did you steal them to get away from the Lhari? *Where's my father?*"

"It's your father they were looking for, you young fool," said the man, gasping hard. "Lucky they had only a description and not a name—but they've probably got that by now, uncoded. We've only confused them for a little while. But if you hadn't played along, they'd have had you watched, and when they get hold of the name Steele—they will, sooner or later, the people in the Procyon system—"

"Where is my father?"

"I hope I don't know," the fat man said. "If he's still where I left him, he's dead. My name is Briscoe. Edmund Briscoe. Your father saved my life years ago, never mind how. The less you know, the safer you'll be for a while. His major worry just now is about you. He was afraid, if he didn't turn up here, you'd take the first ship back to Vega. So he gave me his papers and sent me to warn you—"

Bart shook his head. "It all sounds phony as can be. How do I know whether to believe you or not?" His hand hovered over the robotcab controls. "We're going straight to the police. If you're okay, they won't turn you over to the Lhari. If you're not—"

"You young fool," said the fat man, with feeble violence, "there's no *time* for all that! Ask me questions—I can prove I know your father!"

"What was my mother's name?"

"Oh, God," Briscoe said, "I never saw her. I knew your father long before you were born. Until he told me, I never knew he'd married or had a son. I'd never have known you, except that you're the living image—" He shook his head helplessly, and his breathing sounded hoarse.

"Bart, I'm a sick man, I'm going to die. I want to do what I came here to do, because your father saved my life once when I was young and healthy, and gave

me twenty good years before I got old and fat and sick. Win or lose, I won't live to see you hunted down like a dog, like my own son—"

"Don't talk like that," Bart said, a creepy feeling coming over him. "If you're sick, let me take you to a doctor."

Briscoe did not even hear. "Wait, there is something else. Your father said, 'Tell Bart I've gone looking for the Eighth Color. Bart will know what I mean.'"

"That's crazy. I don't know—"

He broke off, for the memory had come, full-blown:

He was very young: five, six, seven. His mother, tall and slender and very fair, was bending over a blueprint, pointing with a delicate finger at something, straightening, saying in her light musical voice:

"The fuel catalyst—it's a strange color, a color you never saw anywhere. Can you think *of a color that isn't red, orange, yellow, green, blue, violet, indigo or some combination of them? It isn't any of the colors of the spectrum at all. The fuel is a real eighth color."*

And his father had used the phrase, almost adopted it. "When we know what the eighth color is, we'll have the secret of the star-drive, too!"

Briscoe saw his face change, nodded weakly. "I see it means something to you. Now will you do as I tell you? Within a couple of hours, they'll be combing the planet for you, but by that time the ship I came in on will have taken off again. They only stop a short time here, for mail, passengers—no cargo. They may get under way again before all messages are cleared and decoded." He stopped and breathed hard. "The Earth authorities might protect you, but you would never be able to board a Lhari ship again—and that would mean staying on Earth for the rest of your life. You've got to get away before they start comparing notes. Here." His hand went into his pockets. "For your hair. It's a dye—a spray."

He pressed a button on the bulb in his hand; Bart gasped, feeling cold wetness on his head. His own hand came away stained black.

"Keep still." Briscoe said irritably. "You'll need it at the Procyon end of the run. Here." He stuck some papers into Bart's hand, then punched some buttons on the robotcab's control. It wheeled and swerved so rapidly that Bart fell against the fat man's shoulder.

"Are you crazy? What are you going to do?"

Briscoe looked straight into Bart's eyes. In his hoarse, sick voice, he said, "Bart, don't worry about me. It's all over for me, whatever happens. Just remember this. What your father is doing is *worth* doing, and if you start stalling, arguing, demanding explanations, you can foul up a hundred people—and kill about half of them."

He closed Bart's fingers roughly over the papers. The robotcab hovered over the spaceport. "Now listen to me, very carefully. When I stop the cab, down below, jump out. Don't stop to say good-bye, or ask questions, or anything else. Just get out, walk straight through the passenger door and straight up the ramp of the ship. Show them that ticket, and get on. Whatever happens, don't let anything stop you. Bart!" Briscoe shook his shoulder. "Promise! Whatever happens, you'll *get on that ship*!"

Bart swallowed, feeling as if he'd been shoved into a silly cops-and-robbers game. But Briscoe's urgency had convinced him. "Where am I going?"

"All I have is a name—Raynor Three," Briscoe said, "and the message about the Eighth Color. That's all I know." His mouth twisted again in that painful gasp.

The cab swooped down. Bart found his voice. "But what then? Is Dad there? Will I know—"

"I don't know any more than I've told you," Briscoe said. Abruptly the robotcab came to a halt, swaying a little. Briscoe jerked the door open, gave Bart a push, and Bart found himself stumbling out on the ramp beside the spaceport building. He caught his balance, looked around, and realized that the robotcab was already climbing the sky again.

Immediately before him, neon letters spelled TO PASSENGER ENTRANCE ONLY. Bart stumbled forward. The Lhari by the gate thrust out a disinterested claw. Bart held up what Briscoe had shoved into his hand, only now seeing that it was a thin wallet, a set of identity papers and a strip of pink tickets.

"Procyon Alpha. Corridor B, straight through." The Lhari gestured, and Bart went through the narrow passageway, came out at the other end, and found himself at the very base of a curving stair that led up and up toward a door in the side of the huge Lhari ship. Bart hesitated. In another minute he'd be on his way to a strange sun and a strange world, on what might well be the wild-goose

chase of all time.

Passengers were crowding the steps behind him. Someone shouted suddenly, "Look at that!" and someone else yelled, "Is that guy crazy?"

Bart looked up. A robotcab was swooping over the spaceport in wild, crazy circles, dipping down, suddenly making a dart like an enraged wasp at a little nest of Lhari. They ducked and scattered; the robotcab swerved away, hovered, swooped back. This time it struck one of the Lhari grazingly with landing gear and knocked him sprawling. Bart stood with his mouth open, as if paralyzed.

Briscoe! What was he doing?

The fallen Lhari lay without moving. The robotcab moved in again, as if for the kill, buzzing viciously overhead.

Then a beam of light arced from one of the drawn energon-ray tubes. The robotcab glowed briefly red, then seemed to sag, sink together; then puddled, a slag heap of molten metal, on the glassy floor of the port. A little moan of horror came from the crowd, and Bart felt a sudden, wrenching sickness. It had been like a game, a silly game of cops and robbers, and suddenly it was as serious as melted death lying there on the spaceport. *Briscoe!*

Someone shoved him and said, "Come on, quit gawking, kid. They won't hold the ship all day just because some nut finds a new way to commit suicide."

Bart, his legs numb, walked up the ramp. Briscoe had died to give him this chance. Now it was up to him to make it worth having.

CHAPTER THREE

At the top of the ramp, a Lhari glanced briefly at his papers, motioned him through. Bart passed through the airlock, and into a brightly lit corridor half full of passengers. The line was moving slowly, and for the first time Bart had a chance to think.

He had never seen violent death before. In this civilized world, you didn't. He knew if he thought about Briscoe, he'd start bawling like a baby, so he swallowed hard a couple of times, set his chin, and concentrated on the trip to Procyon Alpha. That meant this ship was outbound on the Aldebaran run—Proxima Centauri, Sirius, Pollux, Procyon, Capella and Aldebaran.

The line of passengers was disappearing through a doorway. A woman ahead of Bart turned and said nervously, "We won't be put into cold-sleep right away, will we?"

He reassured her, remembering his inbound trip five years ago. "No, no. The ship won't go into warp-drive until we're well past Pluto. It will be several days, at least."

Beyond the doorway the lights dwindled, and a Mentorian interpreter took his dark glasses, saying, "Kindly remove your belt, shoes and other accessories of leather or metal before stepping into the decontamination chamber. They will be separately decontaminated and returned to you. Papers, please."

With a small twinge of fright, Bart surrendered them. Would the Mentorian ask why he was carrying two wallets? Inside the other one, he still had his Academy ID card which identified him as Bart Steele, and if the Mentorian looked through them to check, and found out he was carrying two sets of identity papers....

But the Mentorian merely dumped all his pocket paraphernalia, without looking at it, into a sack. "Just step through here."

Holding up his trousers with both hands, Bart stepped inside the indicated cubicle. It was filled with faint bluish light. Bart felt a strong tingling and a faint electrical smell, and along his forearms there was a slight prickling where the small hairs were all standing on end. He knew that the invisible R-rays were killing all the microorganisms in his body, so that no disease germ or stray fungus would be carried from planet to planet.

The bluish light died. Outside, the Mentorian gave him back his shoes and belt, handed him the paper sack of his belongings, and a paper cup full of greenish fluid.

"Drink this."

"What is it?"

The medic said patiently, "Remember, the R-rays killed *all* the microorganisms in your body, including the good ones—the antibodies that protect you against disease, and the small yeasts and bacteria that live in your intestines and help in the digestion of your food. So we have to replace those you need to stay healthy. See?"

The green stuff tasted a little brackish, but Bart got it down all right. He didn't much like the idea of drinking a solution of "germs," but he knew that was silly. There was a big difference between disease germs and helpful bacteria.

Another Mentorian official, this one a young woman, gave him a key with a numbered tag, and a small booklet with WELCOME ABOARD printed on the cover.

The tag was numbered 246-B, which made Bart raise his eyebrows. B class was normally too expensive for Bart's father's modest purse. It wasn't quite the luxury class A, reserved for planetary governors and ambassadors, but it was plenty luxurious. Briscoe had certainly sent him traveling in style!

B Deck was a long corridor with oval doors; Bart found one numbered 246, and, not surprisingly, the key opened it. It was a pleasant little cabin, measuring at least six feet by eight, and he would evidently have it to himself. There was a comfortably big bunk, a light that could be turned on and off instead of the permanent glow-walls of the cheaper class, a private shower and toilet, and a placard on the walls informing him that passengers in B class had the freedom of the Observation Dome and the Recreation Lounge. There was even a row of buttons dispensing synthetic foods, in case a passenger preferred privacy or didn't want to wait for meals in the dining hall.

A buzzer sounded and a Mentorian voice announced, "Five minutes to Room Check. Passengers will please remove all metal in their clothing, and deposit in the lead drawers. Passengers will please recline in their bunks and fasten the retaining straps before the steward arrives. Repeat, passengers will

please....”

Bart took off his belt, stuck it and his cuff links in the drawer and lay down. Then, in a sudden panic, he got up again. His papers as Bart Steele were still in the sack. He got them out, and with a feeling as if he were crossing a bridge and burning it after him, tore up every scrap of paper that identified him as Bart Steele of Vega Four, graduate of the Space Academy of Earth. Now, for better or worse, he was—who *was* he? He hadn't even looked at the new papers Briscoe had given him!

He glanced through them quickly. They were made out to David Warren Briscoe, of Aldebaran Four. According to them, David Briscoe was twenty years old, hair black, eyes hazel, height six foot one inch. Bart wondered, painfully, if Briscoe had a son and if David Briscoe knew where his father was. There was also a license, validated with four runs on the Aldebaran Intrasatellite Cargo Company—planetary ships—with the rank of Apprentice Astrogator; and a considerable sum of money.

Bart put the papers in his pants pocket and the torn-up scraps of his old ones into the trashbin before he realized that they looked exactly like what they were—torn-up legal identity papers and a broken plastic card. *Nobody* destroyed identity papers for any good reason. What could he do?

Then he remembered something from the Academy. Starships were closed-system cycles, no waste was discarded, but everything was collected in big chemical tanks, broken down to separate elements, purified and built up again into new materials. He threw the paper into the toilet, worked the plastic card back and forth, back and forth until he had wrenched it into inch-wide bits, and threw it after them.

The cabin door opened and a Mentorian said irritably, “Please lie down and fasten your straps. I haven't all day.”

Hastily Bart flushed the toilet and went to the bunk. Now everything that could identify him as Bart Steele was on its way to the breakdown tanks. Before long, the complex hydrocarbons and cellulose would all be innocent little molecules of carbon, oxygen, hydrogen; they might turn up in new combinations as sugar on the table!

The Mentorian grumbled, “You young people think the rules mean everybody but you,” and strapped him far too tightly into the bunk. Bart felt

resentful; just because Mentorians could work on Lhari ships, did they have to act as if they owned everybody?

When the man had gone, Bart drew a deep breath. Was he really doing the right thing?

If he'd refused to get out of the robotcab—

If he'd driven Briscoe straight to the police—

Then maybe Briscoe would still be alive. And now it was too late.

A warning siren went off in the ship, rising to hysterical intensity. Bart thought, incredulously, *this is really happening*. It felt like a nightmare. His father a fugitive from the Lhari. Briscoe dead. He himself traveling, with forged papers, to a star he'd never seen.

He braced himself, knowing the siren was the last warning before takeoff. First there would be the hum of great turbines deep in the ship, then the crushing surge of acceleration. He had made a dozen trips inside the solar system, but no matter how often he did it, there was the strange excitement, the little pinpoint of fear, like an exotic taste, that was almost pleasant.

The door opened and Bart grabbed a fistful of bed-ticking as two Lhari came into the room.

One of them said, in their strange shrill speech, "This boy is the right age."

Bart froze.

"You're seeing spies in every corner, Ransell," said the other, then in Universal, "Could we trrouble you for your paperesses, sirr?"

Bart, strapped down and helpless, moved his head toward the drawer, hoping his face did not betray his fear. He watched the two Lhari riffle through his papers with their odd pointed claws.

"What isss your planet?"

Bart bit his lip, hard—he had almost said, "Vega Four."

"Aldebaran Four."

The Lhari said in his own language, "We should have Margil in here. He actually saw them."

The other replied, "But I saw the machine that disintegrated. I still say there was enough protoplasm residue for two bodies."

Bart fought to keep his face perfectly straight.

"Did anyone come into your cabin?" The Lhari asked in Universal.

"Only the steward. Why? Is something wrong?"

"There iss some thought that a stowaway might be on boarrd. Of courrrse we could not allow that, anyone not prrroperly prrotected would die in the first shift into warp-drive."

"Just the steward," Bart said again. "A Mentorian."

The Lhari said, eying him keenly, "You are ill? Or discommoded?"

Bart grasped at random for an excuse. "That—that stuff the medic made me drink made me feel—sort of sick."

"You may send for a medical officer after acceleration," said the Lhari expressionlessly. "The summoning bell is at your left."

They turned and went out and Bart gulped. Lhari, in person, checking the passenger decks! Normally you never saw one on board; just Mentorians. The Lhari treated humans as if they were too dumb to bother about. Well, at least for once someone was acting as if humans were worthy antagonists. *We'll show them —someday!*

But he felt very alone, and scared....

A low hum rose, somewhere in the ship, and Bart grabbed ticking as he felt the slow surge. Then a violent sense of pressure popped his ear drums, weight crowded down on him like an elephant sitting on his chest, and there was a horrible squashed sensation dragging his limbs out of shape. It grew and grew. Bart lay still and sweated, trying to ease his uncomfortable position, unable to move so much as a finger. The Lhari ships hit 12 gravities in the first surge of acceleration. Bart felt as if he were spreading out, under the weight, into a puddle of flesh—*melted flesh like Briscoe's*—

Bart writhed and bit his lip till he could taste blood, wishing he were young enough to bawl out loud.

Abruptly, it eased, and the blood started to flow again in his numbed limbs. Bart loosened his straps, took a few deep breaths, wiped his face—wringing wet, whether with sweat or tears he wasn't sure—and sat up in his bunk. The loudspeaker announced, "Acceleration One is completed. Passengers on A and B Decks are invited to witness the passing of the Satellites from the Observation Lounge in half an hour."

Bart got up and washed his face, remembering that he had no luggage with him, not so much as a toothbrush.

At the back of his mind, packed up in a corner, was the continuing worry about his father, the horror at Briscoe's ghastly death, the fear of the Lhari; but he slammed the lid firmly on them all. For the moment he was safe. They might be looking for Bart Steele by now, but they weren't looking for David Briscoe of Aldebaran. He might just as well relax and enjoy the trip. He went down to the Observation Lounge.

It had been darkened, and one whole wall of the room was made of clear quartzite. Bart drew a deep breath as the vast panorama of space opened out before him.

They were receding from the sun at some thousands of miles a minute. Swirling past the ship, gleaming in the reflected sunlight like iron filings moving to the motion of a magnet, were the waves upon waves of cosmic dust—tiny free electrons, ions, particles of gas; free of the heavier atmosphere, themselves invisible, they formed in their billions into bright clouds around the ship; pale, swirling veils of mist. And through their dim shine, the brilliant flares of the fixed stars burned clear and steady, so far away that even the hurling motion of the ship could not change their positions.

One by one he picked out the constellations. Aldebaran swung on the pendant chain of Taurus like a giant ruby. Orion strode across the sky, a swirling nebula at his belt. Vega burned, cobalt blue, in the heart of the Lyre.

Colors, colors! Inside the atmosphere of Earth's night, the stars had been pale white sparks against black. Here, against the misty-pale swirls of cosmic dust, they burned with color heaped on color; the bloody burning crimson of Antares, the metallic gold of Capella, the sullen pulsing of Betelgeuse. They burned, each with its own inward flame and light, like handfuls of burning jewels flung by some giant hand upon the swirling darkness. It was a sight Bart felt he could watch forever and still be hungry to see; the never-changing, ever-changing colors of space.

Behind him in the darkness, after a long time, someone said softly, "Imagine being a Lhari and not being able to see anything out there but bright or brighter light."

A bell rang melodiously in the ship and the passengers in the lounge began to stir and move toward the door, to stretch limbs cramped like Bart's by

tranced watching, to talk quickly of ordinary things.

"I suppose that bell means dinner," said a vaguely familiar voice at Bart's elbow. "Synthetics, I suppose, but at least we can all get acquainted."

The light from the undarkened hall fell on their faces as they moved toward the door. "Bart! Why, it can't be!"

In utter dismay, Bart looked down into the face of Tommy Kendron.

In the rush of danger, he had absolutely forgotten that Tommy Kendron was on this ship—to make his alias useless; Tommy was looking at him in surprise and delight.

"Why didn't you tell me, or did you and your father decide at the last minute? Hey, it's great that we can go part way together, at least!"

Bart knew he must cut this short very quickly. He stepped out into the full corridor light so that Tommy could see his black hair.

"I'm sorry, you're confusing me with someone else."

"Bart, come off it—" Tommy's voice died out. "Sorry, I'd have sworn you were a friend of mine."

Bart wondered suddenly, had he done the wrong thing? He had a feeling he might need a friend. Badly.

Well, it was too late now. He stared Tommy in the eye and said, "I've never seen you before in my life."

Tommy looked deflated. He stepped back slightly, shaking his head. "Never saw such a resemblance. Are you a Vegan?"

"No," Bart lied flatly. "Aldebaran. David Briscoe."

"Glad to know you, Dave." With undiscourageable friendliness, Tommy stuck out a hand. "Say, that bell means dinner, why don't we go down together? I don't know a soul on the ship, and it looks like luck—running into a fellow who could be my best friend's twin brother."

Bart felt warmed and drawn, but sensibly he knew he could not keep up the pretense. Sooner or later, he'd give himself away, use some habitual phrase or gesture Tommy would recognize.

Should he take a chance—reveal himself to Tommy and ask him to keep quiet? No. This wasn't a game. One man was already dead. He didn't want Tommy to be next.

There was only one way out. He said coldly, "thank you, but I have other

things to attend to. I intend to be very busy all through the voyage." He spun on his heel and walked away before he could see Tommy's eager, friendly smile turn hurt and defensive.

Back in his cabin, he gloomily dialed some synthetic jellies, thinking with annoyance of the anticipated good food of the dining room. He knew he couldn't risk meeting Tommy again, and drearily resigned himself to staying in his cabin. It looked like an awfully boring trip ahead.

It was. It was a week before the Lhari ship went into warp-drive, and all that time Bart stayed in his cabin, not daring to go to the observation Lounge or dining hall. He got tired of eating synthetics (oh, they were nourishing enough, but they were altogether uninteresting) and tired of listening to the tapes the room steward got him from the ship's library. By the time they had been in space a week, he was so bored with his own company that even the Mentorian medic was a welcome sight when he came in to prepare him for cold-sleep.

Bart had had the best education on Earth, but he didn't know precisely how the Lhari warp-drive worked. He'd been told that only a few of the Lhari understood it, just as the man who flew a copter didn't need to understand Newton's Three Laws of Motion in order to get himself back and forth to work.

But he knew this much; when the ship generated the frequencies which accelerated it beyond the speed of light, in effect the ship went into a sort of fourth dimension, and came out of it a good many light-years away. As far as Bart knew, no human being had ever survived warp-drive except in the suspended animation which they called cold-sleep. While the medic was professionally reassuring him and strapping him in his bunk, Bart wondered what humans would do with the Lhari star-drive if they had it. Well, he supposed they could use automation in their ships.

The Mentorian paused, needle in hand. "Do you wish to be wakened for the week we shall spend in each of the Proxima, Sirius and Pollux systems, sir? You can, of course, be given enough drug to keep you in cold-sleep until we reach the Procyon system."

Bart wondered if the room steward had mentioned the passenger so bored with the trip that he didn't even visit the Observation Lounge. He felt tempted —he was getting awfully tired of staring at the walls. On the other hand, he wanted very much to see the other star-systems. When he passed through them

on the trip to Earth, he'd been too young to pay much attention.

Firmly he put the temptation aside. Better not to risk meeting other passengers, Tommy especially, if he decided he couldn't take the boredom.

The needle went into his arm. He felt himself sinking into sleep, and, in sudden panic, realized that he was helpless. The ship would touch down on three worlds, and on any of them the Lhari might have his description, or his alias! He could be taken off, drugged and unconscious, and might never wake up! He tried to move, to protest, to tell them he was changing his mind, but already he was unable to speak. There was a freezing moment of intense, painful cold. Then he was floating in what felt like waves of cosmic dust, swirling many-colored before his eyes. And then there was nothing, no color, nothing at all except the nowhere night of sleep.

CHAPTER FOUR

Bart felt cold. He stirred, moved his head in drowsy protest; then memory came flooding back, and in sudden panic he sat up, flinging out his arms as if to ward away anyone who would lay hands on him.

"Easy!" said a soothing voice. A Mentorian—not the same Mentorian—bent over him. "We have just entered the gravitational field of Procyon planet Alpha, Mr. Briscoe. Touchdown in four hours."

Bart mumbled an apology.

"Think nothing of it. Quite a number of people who aren't used to the cold-sleep drug suffer from minor lapses of memory. How do you feel now?"

Bart's legs were numb and his hands tingled when he sat up; but his body processes had been slowed so much by the cold-sleep that he didn't even feel hungry; the synthetic jelly he'd eaten just before going to sleep wasn't even digested yet.

When the Mentorian left for another cabin, Bart looked around, and suddenly felt he would stifle if he stayed here another minute. He wasn't likely to run into Tommy twice in a row, and if he did, well, Tommy would probably remember the snub he'd had and stay away from Dave Briscoe. And he wanted another sight of the stars—before he went into worry and danger.

He went down to the Observation Lounge.

The cosmic dust was brighter out here, and the constellations looked a little flattened. Textbook tables came back to him. He had traveled 47 light-years—he couldn't remember how many *billions* of miles that was. Even so, it was only the tiniest hop-skip-and-jump in the measureless vastness of space.

The ship was streaking toward Procyon, a sol-type star, bright yellow; the three planets, Alpha, Beta and Gamma, ringed like Saturn and veiled in shimmering layers of cloud, swung against the night. Past them other stars, brighter stars, faraway stars he would never see, glimmered through the pale dust....

"Hello, Dave. Been space-sick all this time? Remember me? I met you about six weeks ago in the lounge down here—just out from Earth."

Oh, no! Bart turned, with a mental groan, to face Tommy. "I've been in cold-sleep," he said. He *couldn't* be rude again.

"What a dull way to face a long trip!" Tommy said cheerily. "I've enjoyed every minute of it myself."

It was hard for Bart to realize that, for Tommy, their meeting had been six weeks ago. It all seemed dreamlike. The closer he came to it, the less he could realize that in a few hours he'd be getting off on a strange world, with only the strange name *Raynor Three* as a guide. He felt terribly alone, and having Tommy close at hand helped, even though Tommy didn't know he was helping.

"Maybe I should have stayed awake."

"You should," Tommy said. "I only slept for a couple of hours at each warp-drive shift. We had a day-long stopover at Sirius Eighteen, and I took a tour of the planet. And I've spent a lot of time down here, just star-gazing—not that it did me much good. Which one is Antares? How do you tell it from Aldebaran? I'm always getting them mixed up."

Bart pointed. "Aldebaran—that's the big red one there," he said. "Think of the constellation Taurus as a necklace, with Aldebaran hanging from it like a locket. Antares is much further down in the sky, in relation to the arbitrary sidereal axis, and it's a deeper red. Like a burning coal, while Aldebaran is like a ruby—"

He broke off in mid-word, realizing that Tommy was gazing at him in a mixture of triumph and consternation. Too late, Bart realized he had been tricked. Studying for an exam, the year before, he had explained the difference between the two red stars in almost the same words.

"Bart," Tommy said in a whisper, "I knew it had to be you. Why didn't you tell me, fella?"

Bart felt himself start to smile, but it only stretched his mouth. He said, very low, "Don't say my name out loud Tom. I'm in terrible trouble."

"Why didn't you tell me? What's a friend for?"

"We can't talk here. And all the cabins are wired for sound in case somebody stops breathing, or has a heart attack in space," Bart said, glancing around.

They went and stood at the very foot of the quartz window, seeming to tread the brink of a dizzying gulf of cosmic space, and talked in low tones while Alpha and Beta and Gamma swelled like blown-up balloons in the port.

Tommy listened, almost incredulous. "And you're hoping to find your

father, with no more information than that? It's a big universe," he said, waving at the gulf of stars. "The Lhari ships, according to the little tourist pamphlet they gave me, touch down at nine hundred and twenty-two different stars in this galaxy!"

Bart visibly winced, and Tommy urged, "Come to Capella with me. You can stay with my family as long as you want to, and appeal to the Interplanet authority to find your father. They'd protect him against the Lhari, surely. You can't chase all over the galaxy playing interplanetary spy all by yourself, Bart!"

But Briscoe had deliberately gone to his death, to give Bart the chance to get away. He wouldn't have died to send Bart into a trap he could easily have sprung on Earth.

"Thanks, Tommy. But I've got to play it my way."

Tommy said firmly, "Count me in then. My ticket has stopover privileges. I'll get off at Procyon with you."

It was a temptation—to have a friend at his back. He put his hand on Tommy's shoulder, grateful beyond words. But fresh horror seized him as he remembered the horrible puddle of melted robotcab with Briscoe somewhere in the residue. *Protoplasm residue enough for two bodies.* He couldn't let Tommy face that.

"Tommy, I appreciate that, believe me. But if I did find my father and his friends, I don't want anyone tracing me. You'd only make the danger worse. The best thing you can do is stay out of it."

Tommy faced him squarely. "One thing's for sure. I'm not going to let you go off and never know whether you're alive or dead."

"I'll try to get a message to you," Bart said, "if I can. But whatever happens, Tommy, stay with the ship and go on to Capella. It's the one thing you can do to help me."

A warning bell rang in the ship. He broke sharply away from Tommy, saying over his shoulder, "It's all you can do to help, Tom. Do it—please? Just stay clear?"

Tommy reached out and caught his arm. "Okay," he said reluctantly, "I will. But you be careful," he added fiercely. "You hear me? And if I don't hear from you in some reasonable time, I'll raise a stink from here to Vega!"

Bart broke away and ran. He was afraid, if he didn't, he'd break up again.

He closed the cabin door behind him, trying to calm down so that the Mentorian steward, coming to strap him in for deceleration, wouldn't see how upset he was. He was going to need all his nerve.

He went through another decontamination chamber, and finally moved, with a line of passengers, out of the yawning airlock, under the strange sun, into the strange world.

At first sight it was a disappointment. It was a Lhari spaceport that lay before him, to all appearances identical with the one on Earth: sloping glass ramps, tall colorless pylons, a skyscraper terminus crowded with men of all planets. But the sun overhead was brilliant and clear gold, the shadows sharp and violet on the spaceport floor. Behind the confines of the spaceport he could see the ridges of tall hills and unfamiliarly colored trees. He longed to explore them, but he got a grip on his imagination, surrendering his ticket stub and false papers to the Lhari and Mentorian interpreter who guarded the ramp.

The Lhari said to the Mentorian, in the Lhari language, "Keep him for questioning but don't tell him why." Bart felt a cold chill icing his spine. *This was it.*

The Mentorian said briefly, "We wish to check on the proper antibody component for Aldebaran natives. There will be a delay of about thirty minutes. Will you kindly wait in this room here?"

The room was comfortable, furnished with chairs and a vision-screen with some colorful story moving on it, small bright figures in capes, curious beasts racing across an unusual veldt; but Bart paced the floor restlessly. There were two doors in the room. Through one of them, he had been admitted; he could see, through the glass door, the silhouette of the Mentorian outside. The other door was opaque, and marked in large letters:

DANGER HUMANS MUST NOT PASS WITHOUT SPECIAL LENSES TYPE X. ORDINARY SPACE LENSES WILL NOT SUFFICE DANGER! LHARI OPENING! ADJUST X LENSES BEFORE OPENING!

Bart read the sign again. Well, *that* was no way out, for sure! He had heard that the Lhari sun was almost 500 times as bright as Earth's. The Mentorians alone, among humans, could endure Lhari lights—he supposed the warning was for ordinary spaceport workers.

A sudden, rather desperate plan occurred to Bart. He didn't know how much light he *could* tolerate—he'd never been on Mentor—but he *had* inherited some of his mother's tolerance for light. And blindness would be better than being burned down with an energon-gun! He went hesitantly toward the door, and pushed it open.

His eyes exploded into pain; automatically his hands went up to shield them. Light, light—he had never known such cruelly glowing light. Even through the lids there was pain and red afterimages; but after a moment, opening them a slit, he found that he could see, and made out other doors, glass ramps, pale Lhari figures coming and going. But for the moment he was alone in the long corridor beyond which he could see the glass ramps.

Nearby, a door opened into a small office with glass walls; on a peg, one of the silky metallic cloaks worn by Mentorians doing spaceport work was hanging. On an impulse, Bart caught it up and flung it around his shoulders.

It felt cool and soft, and the hood shielded his eyes a little. The ramp leading down to what he hoped was street level was terribly steep and there were no steps. Bart eased himself over the top of the ramp and let go. He whooshed down the slick surface on the flat of his back, feeling the metal of the cloak heat with the friction, and came to a breathless jarring stop at the bottom. Whew, what a slide! Three stories, at least! But there was a door, and outside the door, maybe, safety.

A voice hailed him, in Lhari. "You, there!"

Bart could see well now. He made out the form of a Lhari, only a colorless blob in the intense light.

"You people know better than to come back here without glasses. Do you want to be blinded, my friend?" He actually sounded kind and concerned. Bart tensed, his heart pounding. Now that he was caught, could he bluff his way out? He hadn't actually spoken the Lhari language in years, though his mother had taught it to him when he was young enough to learn it without a trace of accent.

Well, he must try. "Margil sent me to check," he improvised quickly. "They were holding someone for questioning, and he seems to have gotten away somehow, so I wanted to make sure he didn't come through here."

"What is the matter that one man can give us all the slip this way?" the Lhari said curiously. "Well, one thing is sure, he's Vegan or Solarian or

Capellan, one of the dim-star people. If he comes through here, we'll catch him easily enough while he's stumbling around half blind. You know that you shouldn't stay long." He gestured. "Out this way—and don't come back without special lenses."

Bart nodded, jerking the cloak around his shoulders, forcing himself not to break into a run as he stepped through the door the Lhari indicated. It closed behind him. Bart blinked, feeling as if he had stepped into pitch darkness. Only slowly did his eyes adapt and he became aware that he was standing in a city street, in the full glow of Procyon sunlight, and apparently outside the Lhari spaceport entirely.

He'd better get to cover! He took off the Mentorian cloak, thrust it under his arm. He raised his eyes, which were adjusting to ordinary light again, and stopped dead.

Just across the street was a long, low, rainbow colored building. And the letters—Bart blinked, thinking his eyes deceived him—spelled out:

EIGHT COLORS TRANSSHIPPING CORPORATION
CARGO, PASSENGERS, MESSAGES, EXPRESS
A. RAYNOR ONE, MANAGER

CHAPTER FIVE

For a moment the words swirled before Bart's still-watering eyes. He wiped them, trying to steady himself. Had he so soon reached the end of his dangerous quest? Somehow he had expected it to lie in deep, dark concealment.

Raynor One. The existence of Raynor *One* presupposed a Raynor *Two* and probably a Raynor *Three*—for all he knew, Raynors Four, Five, Six, and Sixty-six! The building looked solid and real. It had evidently been there a long time.

With his hand on the door, he hesitated. Was it, after all, the *right* Eight Colors? But it was a family saying; hardly the sort of thing you'd be apt to hear outside. He pushed the door and went in.

The room was filled with brighter light than the Procyon sun outdoors, the edges of the furniture rimmed with neon in the Mentorian fashion. A prim-looking girl sat behind a desk—or what should have been a desk, except that it looked more like a mirror, with little sparkles of lights, different colors, in regular rows along one edge. The mirror-top itself was blue-violet and gave her skin and her violet eyes a bluish tinge. She was smooth and lacquered and glittering and she raised her eyebrows at Bart as if he were some strange form of life she hadn't seen very often.

"I'd—er—like to see Raynor One," he said.

Her dainty pointed fingernail, varnished blue, stabbed at points of light. "On what business?" she asked, not caring.

"It's a personal matter."

"Then I suggest you see him at his home."

"It can't wait that long."

The girl studied the glassy surface and punched at some more of the little lights. "Name, please?"

"David Briscoe."

He had thought her perfect-painted face could not show any emotion except disdain, but it did. She looked at him in open, blank consternation. She said into the vision-screen, "He calls himself David Briscoe. Yes, I know. Yes, sir, yes." She raised her face, and it was controlled again, but not bored. "Raynor One will see you. Through that door, and down to the end of the hall."

At the end of the hallway was another door. He stepped through into a small

cubicle, and the door slid shut like a closing trap. He whirled in panic, then subsided in foolish relief as the cubicle began to rise—it was just an automatic elevator.

It rose higher and higher, stopping with an abrupt jerk, and slid open into a lighted room and office. A man sat behind a desk, watching Bart step from the elevator. The man was very tall and very thin, and the gray eyes, and the intensity of the lights, told Bart that he was a Mentorian. *Raynor One?*

Under the steady, stern gray stare, Bart felt the slow, clutching suck of fear again. Was this man a slave of the Lhari, who would turn him over to them? Or someone he could trust? His own mother had been a Mentorian.

"Who are you?" Raynor One's voice was harsh, and gave the impression of being loud, though it was not.

"David Briscoe."

It was the wrong thing. The Mentorian's mouth was taut, forbidding. "Try again. I happen to know that David Briscoe is dead."

"I have a message for Raynor Three."

The cold gray stare never altered. "On what business?"

On a sudden inspiration, Bart said, "I'll tell you that if you can tell me what the Eighth Color is."

There was a glint in the grim eyes now, though the even, stern voice did not soften. "I never knew myself. I didn't name it Eight Colors. Maybe it's the original owner you want."

On a sudden hope, Bart asked, "Was he, by any chance, named Rupert Steele?"

Raynor One made a suspicious movement. "I can't imagine why you think so," he said guardedly. "Especially if you've just come in from Earth. It was never very widely known. He only changed the name to Eight Colors a few weeks ago. And it's for sure that your ship didn't get any messages while the Lhari were in warp-drive. You mention entirely too many names, but I notice you aren't giving out any further information."

"I'm looking for a man called Rupert Steele."

"I thought you were looking for Raynor Three," said Raynor One, staring at the Mentorian cloak. "I can think of a lot of people who might want to know how I react to certain names, and find out if I know the wrong people, if they are the

wrong people. What makes you think I'd admit it if I did?"

Now, Bart thought, they had reached a deadlock. Somebody had to trust somebody. This could go on all night—parry and riposte, question and evasive answer, each of them throwing back the other's questions in a verbal fencing-match. Raynor One wasn't giving away any information. And, considering what was probably at stake, Bart didn't blame him much.

He flung the Mentorian cloak down on the table.

"This got me out of trouble—the hard way," he said. "I never wore one before and I never intend to again. I want to find Rupert Steele because he's my father!"

"Your father. And just how are you going to prove that exceptionally interesting statement?"

Without warning, Bart lost his temper.

"I don't care whether I prove it or not! *You* try proving something for a change, why don't you? If you know Rupert Steele, I don't have to prove who I am—just take a good look at me! Or so Briscoe told me—a man who called himself Briscoe, anyway. He gave me papers to travel under that name! I didn't ask for them, he shoved them into my hand. *That* Briscoe is dead." Bart struck his fist hard on the desk, bending over Raynor One angrily.

"He sent me to find a man named Raynor Three. But the only one I really care about finding is my father. Now you know as much as I do, how about giving *me* some information for a change?"

He ran out of breath and stood glaring down at Raynor One, fists clenched. Raynor One got up and said, quick, savage and quiet, "Did anyone see you come here?"

"Only the girl downstairs."

"How did you get through the Lhari? In that?" He moved his head at the Mentorian cloak.

Bart explained briefly, and Raynor One shook his head.

"You were lucky," he said, "you could have been blinded. You must have inherited flash-accommodation from the Mentorian side—Rupert Steele didn't have it. I'll tell you this much," he added, sitting down again. "In a manner of speaking, you're my boss. Eight Colors—it used to be Alpha Transshipping—is what they call a middleman outfit. The interplanet cargo lines transport from

planet to planet within a system—that's free competition—and the Lhari ships transport from star to star—that's a monopoly all over the galaxy. The middleman outfits arrange for orderly and businesslike liaison between the two. Rupert Steele bought into this company, a long time ago, but he left it for me to manage, until recently."

Raynor punched a button, said to the image of the glossy girl at the desk, "Violet, get Three for me. You may have to send a message to the *Multiphase*."

He swung round to Bart again. "You want a lot of explanations? Well, you'll have to get 'em from somebody else. I don't know what this is all about. I don't *want* to know: I have to do business with the Lhari. The less I know, the less I'm apt to say to the wrong people. But I promised Three that if you turned up, or if anyone came and asked for the Eighth Color, I'd send you to him. That's all."

He motioned Bart ungraciously to a seat, and shut his mouth firmly, as if he had already said too much. Bart sat. After a while he heard the elevator again; the panel slid open and Raynor Three came into the room.

It had to be Raynor Three; there was no one else he could have been. He was as like Raynor One as Tweedledum to Tweedledee: tall, stern, ascetic and grim. He wore the full uniform of a Mentorian on Lhari ships: the white smock of a medic, the metallic blue cloak, the low silvery sandals.

He said, "What's doing, One? Violet—" and then he caught sight of Bart. His eyes narrowed and he drew a quick breath, his face twisting up into apprehension and shock.

"It must be Steele's boy," he said, and immediately Bart saw the difference between the—were they brothers? For Raynor One's face, controlled and stern, had not altered all during their interview, but Raynor Three's smile was wry and kindly at once, and his voice was low and gentle. "He's the image of Rupert. Did he come in on his own name? How'd he manage it?"

"No. He had David Briscoe's papers."

"So the old man got through," said Raynor Three, with a low whistle. "But that's not safe. Quick, give them to me, Bart."

"The Lhari have them."

Raynor One walked to the window and said in his deadpan voice, "It's useless. But get the kid out of here before they come looking for me. Look."

He pointed. Below them, the streets were alive with uniformed Lhari and

Mentorians. Bart felt sick.

"If they had the same efficiency with red tape that we humans have, he'd never have made it this far."

Raynor Three actually smiled. "But you can count on them for that much inefficiency," he said, and his eyes twinkled for a moment at Bart. "That's how it was so easy to work the old double-shuffle trick on them. They had Steele's description but not his name, so Briscoe took Steele's papers and managed to slip through. Once they landed on Earth, they had the Steele *names*, but by the time that cleared, you were outbound with another set of papers. It may have confused them, because they knew*David* Briscoe was dead—and there was just a chance you were an innocent bystander who could raise a real row if they pulled you in. Did old Briscoe get away?"

"No," Bart said, harshly, "he's dead."

Raynor Three's mobile face held shocked sadness. "Two brave men," he said softly, "Edmund Briscoe the father, David Briscoe the son. Remember the name, Bart, because I won't remember it."

"Why not?"

Raynor Three gave him a gold-glinting, enigmatic glance. "I'm a Mentorian, remember? I'm good at not remembering things. Just be glad I remember Rupert Steele. If you'd been a few days later, I wouldn't have remembered him, though I promised to wait for you."

Raynor One demanded, "Get him *out* of here, Three!"

Raynor Three swung to Bart. "Put that on again." He indicated the Mentorian cloak. "Pull the hood right up over your head. Now, if we meet anyone, say a polite good afternoon in Lhari—you *can* speak Lhari?—and leave the rest of the talking to me."

Bart felt like cringing as they came out into the street full of Lhari; but Raynor Three whispered, "Attack is the best defense," and went up to one of the Lhari. "What's going on, *rieko mori*?"

"A passenger on the ship got away without going through Decontam. He may spread disease, so of course we have alerted all authorities," the Lhari said.

As the Lhari strode past, Raynor Three grimaced. "Clever, that. Now the whole planet will be hunting for any stranger, worrying themselves into fits about some unauthorized germ. We'd better get you to a safe place. My country

house is a good way off, but I have a copter."

Bart demanded, as they climbed in, "Are you taking me to my father?"

"Wait till we get to my place," Raynor Three said, taking the controls and putting the machine in the air. "Just lean back and enjoy the trip, huh?"

Bart relaxed against the cushions, but he still felt apprehensive. Where was his father? If he was a fugitive from the Lhari, he might by now be at the other end of the galaxy. But if his father couldn't travel on Lhari ships, and if he had been here, the chances were that he was still somewhere in the Procyon system.

They flew for a long time; across low hills, patchwork agricultural districts, towns, and then for a long time over water. The copter had automatic controls, but Raynor Three kept it on manual, and Bart wondered if the Mentorian just didn't want to talk.

It began to descend, at last, toward a small green hill, bright in the last gold rays on sunset. A small domelike pink bubble rose out of the hill. Raynor Three set the copter neatly down on a platform that slid shut after them, unfastened their seat belts and gave Bart a hand to climb out.

He ushered him into a living room of glass and chrome, softly lighted, but deserted and faintly dusty. Raynor pushed a switch; soft music came on, and the carpets caressed his feet. He motioned Bart to a chair.

"You're safe here, for a while," Raynor Three said, "though how long, nobody knows. But so far, I've been above suspicion."'

Bart leaned back; the chair was very comfortable, but the comfort could not help him to relax.

"Where is my father?" he demanded.

Raynor Three stood looking down at him, his mobile face drawn and strange. "I guess I can't put it off any longer," he said softly. Then he covered his face with his hands. From behind them hoarse words came, choked with emotion.

"Your father is dead, Bart. I—I killed him."

CHAPTER SIX

For a moment Bart stared, frozen, unable to move, his very ears refusing the words he heard. Had this all been another cruel trick, then, a trap, a betrayal? He rose and looked wildly around the room, as if the glass walls were a cage closing in on him.

"Murderer!" he flung at Raynor, and took a step toward him, his clenched fists coming up. He'd been shoved around too long, but here he had one of them right in front of him, and for once he'd hit back! He'd start by taking Raynor Three apart—in small pieces! "You—you rotten murderer!"

Raynor Three made no move to defend himself. "Bart," he said compassionately, "sit down and listen to me. No, I'm no murderer. I—I shouldn't have put it that way."

Bart's hands dropped to his sides, but he heard his voice crack with pain and grief: "I suppose you'll tell me he was a spy or a traitor and you *had* to kill him!"

"Not even that. I tried to save your father, I did everything I could. I'm no murderer, Bart. I killed him, yes—God forgive me, because I'll never forgive myself!"

Bart's fists unclenched and he stared down at Raynor Three, shaking his head in bewilderment and pain. "I knew he was dead! I knew it all along! I was trying not to believe it, but I knew!"

"I liked your father. I admired him. He took a long chance, and it killed him. I could have stopped him, I should have stopped him, but how could I? Where did I have the right to stop him, after what I did to—" he stopped, almost in mid-word, as if a switch had been turned.

But Bart was not listening. He swung away, striding to the wall as if he would kick it in, striking it with his two clenched fists, his whole being in revolt. *Dad, oh, Dad! I kept going, I thought at the end of it you'd be here and it would all be over. But here I am at the end of it all, and you're not here, you won't ever be here again.*

Dimly, he knew when Raynor Three rose and left him alone. He leaned his head on his clenched fists, and cried.

After a long time he raised his head and blew his nose, his face setting itself

in new, hard, unaccustomed lines, slowly coming to terms with the hard, painful reality. His father was dead. His dangerous, dead-in-earnest game of escape had no happy ending of reunion with his father. They couldn't sit together and laugh about how scared he had been. His father was *dead*, and he, Bart, was alone and in danger. His face looked very grim indeed, and years older than he was.

After a long time Raynor Three opened the door quietly. "Come and have something to eat, Bart."

"I'm not hungry."

"Well, I am," Raynor Three said, "and you ought to be. You'll need it." He pulled knobs and the appropriate tables and chairs extruded themselves from the walls. Raynor unsealed hot cartons and spread them on the table, saying lightly, "Looks good—not that I can claim any credit, I subscribe to a food service that delivers them hot by pneumatic tube."

Bart felt sickened by the thought of eating, but when he put a polite fork in the food, he discovered that he was famished and ate up everything in sight. When they had finished, Raynor dumped the cartons into a disposal chute, went to a small portable bar and put a glass into his hand.

"Drink this."

Bart touched his lips to the glass, made a face and put it away. "Thanks, but I don't drink."

"Call it medicine, you'll need something," Raynor Three said crossly. "I've got a lot to tell you, and I don't want you going off half-primed in the middle of a sentence. If you'd rather have a shot of tranquilizer, all right; otherwise, I prescribe that you drink what I gave you." He gave Bart a quick, wry grin. "I really am a medic, you know."

Feeling like a scolded child, Bart drank. It burned his mouth, but after it was down, he felt a sort of warm burning in his insides that gradually spread a sense of well-being all through him. It wasn't alcohol, but whatever it was, it had quite a kick.

"Thanks," he muttered. "Why are you taking this trouble, Raynor? There must be danger—"

"Don't you know—" Raynor broke off. "Obviously, you don't. Your mother never said much about your Mentorian family tree, I suppose? She was a

Raynor." He smiled at Bart, a little ruefully. "I won't claim a kinsman's privileges until you decide how much to trust me."

Raynor Three settled back.

"It's a long story and I only know part of it," he began. "Our family, the Raynors, have traded with the Lhari for more generations than I can count. When I was a young man, I qualified as a medic on the Lhari ships, and I've been star-hopping ever since. People call us the slaves of the Lhari—maybe we are," he added wryly. "But I began it just because space is where I belong, and there's nowhere else that I've ever wanted to be. And I'll take it at any price.

"I never questioned what I was doing until a few years ago. It was your father who made me wonder if we Mentorians were blind and selfish—this privilege ought to belong to everyone, not just the Lhari. More and more, the Lhari monopoly seemed wrong to me. But I was just a medic. And if I involved myself in any conspiracy against the Lhari, they'd find it out in the routine psych-checking.

"And then we worked out how it could be done. Before every trip, with self-hypnosis and self-suggestion, I erase my own memories—a sort of artificial amnesia—so that the Lhari can't find out any more than I want them to find out. Of course, it also means that I have no memory, while I'm on the Lhari ships, of what I've agreed to while I'm—" His face suddenly worked, and his mouth moved without words, as if he had run into some powerful barrier against speech.

It was a full minute, while Bart stared in dismay, before he found his voice again, saying, "So far, it was just a sort of loose network, trying to put together stray bits of information that the Lhari didn't think important enough to censor.

"And then came the big breakthrough. There was a young Apprentice astrogator named David Briscoe. He'd taken some runs in special test ships, and read some extremely obscure research data from the early days of the contact between men and Lhari, and he had a wild idea. He did the bravest thing anyone has ever done. He stripped himself of all identifying data—so that if he died, no one would be in trouble with the Lhari—and stowed away on a Lhari ship."

"But—" Bart's lips were dry—"didn't he die in the warp-drive?"

Slowly, Raynor Three shook his head.

"No, he didn't. No drugs, no cold-sleep—but he didn't die. Don't you see, Bart?" He leaned forward, urgently.

"*It's all a fake!* The Lhari have just been saying that to justify their refusal to give us the secret of the catalyst that generates the warp-drive frequencies! Such a simple lie, and it's worked for all these years!"

"A Mentorian found him and didn't have the heart to turn him over to the Lhari. So he was smuggled clear again. But when that Mentorian underwent the routine brain-checks at the end of the voyage, the Lhari found out what had happened. They didn't know Briscoe's name, but they wrung that Mentorian out like a wet dishcloth and got a description that was as good as fingerprints. They tracked down young Briscoe and killed him. They killed the first man he'd talked to. They killed the second. The third was your father."

"The murdering devils!"

Raynor sighed. "Your father and Briscoe's father were old friends. Briscoe's father was dying with incurable heart disease; *his* son was dead, and old Briscoe had only one thought in his mind—to make sure he didn't die for nothing. So he took your father's papers, knowing they were as good as a death warrant, slipped away and boarded a Lhari ship that led roundabout to stars where the message hadn't reached yet. He led them a good chase. Did he die or did they track him down and kill him?" Bart bowed his head and told the story.

"Meanwhile," Raynor Three continued, "your father came to me, knowing I was sympathetic, knowing I was a Lhari-trained surgeon. He had just one thought in his mind: to do, again, what David Briscoe had done, and make sure the news got out this time. He cooked up a plan that was even braver and more desperate. He decided to sign on a Lhari ship as a member of the crew."

"As a Mentorian?" Bart asked, but something cold, like ice water trickling down his back, told him this was not what Raynor meant. "The brainwashing —"

"No," said Raynor, "not as a Mentorian; he couldn't have escaped the psych-checking. *As a Lhari.*"

Bart gasped. "How—"

"Men and Lhari are very much alike," Raynor Three said. "A few small things—skin color, the shape of the ears, the hands and claws—keep humans

from seeing that the Lhari are men."

"Don't say that," Bart almost yelled. "Those filthy, murdering devils! You call those monsters men?"

"I've lived among the Lhari all my life. They're not devils, Bart, they have their reasons. Physiologically, the Lhari are—well, *humanoid*, if you like that better. They're a lot more like a man than a man is like, for instance, a gorilla. Your father convinced me that with minor plastic and facial surgery, he could pass as a Lhari. And finally I gave in, and did the surgery—"

"And it killed him!"

"Not really. It was a completely unforeseeable thing—a blood clot broke loose in a vein, and lodged in his brain. He was dead in seconds. It could have happened at any time," he said, "yet I feel responsible, even though I keep telling myself I'm not. And I'll help you as much as I can—for his sake, and for your mother's. The Lhari don't watch me too closely—they figure that anything I do they'll catch in the brainwashing. But I'm still one step ahead of them, as long as I can erase my own memories."

Bart was sifting it all, slowly, in his mind.

"Why was Dad doing this? What could he gain?"

"You know we can build ships as good as the Lhari ships, but we don't know anything about the rare catalyst they use for warp-drive fuel. Captain Steele had hopes of being able to discover where they got it."

"But couldn't they find out where the Lhari ships go for fueling?"

"No. There's no way to trail a Lhari ship," he reminded Bart. "We can follow them inside a star-system, but then they pop into warp-drive, and we don't know where they go when they aren't running between *our* stars.

"We've gathered together what information we *do* have, and we know that after a certain number of runs in our part of the galaxy, ships take off in the direction of Antares. There's a ship, due to come in here in about ten days, called the *Swiftwing*, which is just about due to make the Antares run. Captain Steele had managed to arrange—I don't know how, and I don't want to know how—for a vacancy on that ship, and somehow he got credentials. You see, it's a very good spy system, a network between the stars, but the weak link is this: everything, every message, every man, has to travel back and forth by the Lhari ships themselves."

He rose, shaking it all off impatiently. "Well, it's finished now. Your father is dead. What are you going to do? If you want to go back to Vega, you can probably convince the Lhari you're just an innocent bystander. They *don't* hurt bystanders or children, Bart. They aren't bad people. They're just protecting their business monopoly.

"The safest way to handle it would be this: let me erase your memories of what I've told you tonight. Then just let the Lhari capture you. They won't kill you. They'll just give you a light psych-check. When they find out you don't know anything, they'll send you back to Vega, and you can spend the rest of your life in peace, running Vega Interplanet and Eight Colors."

Bart turned on him furiously. "You mean, go home like a good little boy, and pretend none of this ever happened? What do you think I am, anyhow?" Bart's chin set in the new, hard line. "What I want is a chance to go on where Dad left off!"

"It won't be easy, and it could be dangerous," Raynor Three said, "but there's nothing else to be done. We had the arrangements all made; and now somebody's got to take the dangerous risk of calling them off. Are you game for a little plastic surgery—just enough to change your looks again, with new forged papers? You can't go by the *Swiftwing*—it doesn't carry passengers—but there's another route you can take."

Bart sprang up. "No," he said, "I know a better way. Let me go on the *Swiftwing*—in Dad's place—*as a Lhari*!"

"Bart, no," Raynor Three said. "You'd never get away with it. It's too dangerous." But his gold eyes glinted.

"Why not? I speak Lhari better than Dad ever did. And my eyes can stand Lhari lights. You said yourself, it's going to be a dangerous job just calling off all the arrangements. So let's *not* call them off. Just let me take Dad's place!"

"Bart, you're only a boy—"

"What was Dave Briscoe? No, Raynor. Dad left me a lot more than Vega Interplanet, and you know it. I'll finish what he started, and then maybe I'll begin to deserve what he left me."

Raynor Three gripped Bart's hand. He said, in a voice that shook, "All right, Bart. You're your father's son. I can't say more than that. I haven't any right to stop you."

CHAPTER SEVEN

"All right, Bart, today we'll let you look at yourself," Raynor Three said.

Bart smiled under the muffling layers of bandage around his face. His hands were bandaged, too, and he had not been permitted to look in a mirror. But the transition had been surprisingly painless—or perhaps his sense of well-being had been due to Raynor Three slipping him some drug.

He'd been given injections of a chemical that would change the color of his skin; there had been minor operations on his face, his hands, his feet.

"Let's see you get up and walk around."

Bart obeyed awkwardly, and Raynor frowned. "Hurt?"

"Not exactly, but I feel as if I were limping."

"That's to be expected. I changed the angle of the heel tendon and the muscle of the arch. You're using a different set of muscles when you walk; until they harden up, you'll have some assorted Charley horses. Have any trouble hearing me?"

"No, though I'd hear better without all these bandages," Bart said impatiently.

"All in good time. Any trouble breathing?"

"No, except for the bandages."

"Fine. I changed the shape of your ears and nostrils, and it might have affected your hearing or your breathing. Now, listen, Bart: I'm going to take the bandages off your hands first. Sit down."

Bart sat across the table from him, obediently sticking out his hands. Raynor Three said, "Shut your eyes."

Bart did as he was told and felt Raynor Three's long fingers working at the bandages.

"Move each finger as I touch it." Bart obeyed, and Raynor said neutrally, "Good. Now, take a deep breath and then open your eyes."

Impatiently Bart flicked his lids open. In spite of the warning, his breath went out in a harsh, jolting gasp. His hands lay on the table before him—but they were not his hands.

The narrow, long fingers were pearl-gray, tipped with whitish-pink claws that curved out over the tips. Nervously Bart moved one finger, and the long

claw flicked out like a cat's, retracted. He swallowed.

"Golly!" He felt strangely wobbly.

"A beautiful job, if I do say so. Be careful not to scratch yourself, and practice picking up small things."

Bart saw that the long grayish claws were trembling. "How did you make—the claws?"

"Quite simple, really," Raynor beamed. "I injected protein compounds into the nail matrix, which speeded up nail growth terrifically, and then, as they grew, shaped them. Joining on those tiny muscles for the retracting mechanism was the tricky part though."

Bart was moving his hands experimentally. Once over the shock, they felt quite normal. The claws didn't get in his way half so much as he'd expected when he picked up a pen that lay beside him and, with the blunt tip, made a few of the strange-looking dots and wedges that were the Lhari alphabet.

"Practice writing this," said Raynor Three, and laid a plastic-encased folder down beside him. It was a set of ship's papers printed in Lhari. Bart read it through, seeing that it was made out to the equivalent of Astrogator, First Class, Bartol.

"That's your name now, the name your father would have used. Memorize it, get used to the sound of it, practice writing it. Don't worry too much about the rating; it's an elementary one, what we'd call Apprentice rating, and I have a training tape for you anyhow. My brother got hold of it, don't ask me how—and don't ask him!"

"When am I going to see my face?"

"When I think you're ready for the shock," Raynor said bluntly. "It almost threw you when I showed you your hands."

He made Bart walk around some more briefly, slowly, he unwound the bandages; then turned and picked up a mirror at the bottom of his medic's case, turning it right side up. "Here. But take it easy."

But when Bart looked in the mirror he felt no unexpected shock, only an unnerving revulsion.

His hair was bleached-white and fluffy, almost feathery to the touch. His skin was grayish-rose, and his eyelids had been altered just enough to make his eyes look long, narrow and slanted. His nostrils were mere slits, and he moved

his tongue over lips that felt oddly thin.

"I did as little to your teeth as I thought I could get away with-capped the front ones," Raynor Three told him. "So if you get a toothache you're out of luck—you won't dare go to a Lhari dentist. I could have done more, but it would have made you look too freakish when we changed you back to human again—if you live that long," he added grimly.

I hadn't thought about that. And if Raynor is going to forget me, who will do it? The cold knot of fear, never wholly absent, moved in him again.

Watching his face, Raynor Three said gently, "It's a big network, Bart. I'm not telling you much, for your own safety. But when you get to Antares, they'll tell you all you need to know."

He lifted Bart's oddly clawed hands. "I warned you, remember—the change isn't completely reversible. Your hands will always look—strange. The fingers had to be lengthened, for instance. I wanted to make you as safe as possible among the Lhari. I think you'll pass anything but an X-ray. Just be careful not to break any bones."

He gave Bart a package. "This is the Lhari training tape. Listen to it as often as you can, then destroy it—*completely*—before you leave here. The *Swiftwing* is due in port three days from now, and they stay here a week. I don't know how we'll manage it, but I'll guarantee there'll be a vacancy of one Astrogator, First Class, on that ship." He rose. "And now I'm going back to town and erase the memory." He stopped, looking intently at Bart.

"So if you see me, stay away from me and don't speak, because I won't know you from any other Lhari. Understand? From here on, you're on your own, Bart."

He held out his hand. "This is the rough part, Son." His face moved strangely. "I'm part of this network between the stars, but I don't know what I've done before, and I'll never know how it comes out. It's funny to stand here and look at you and realize that I won't even remember you." The gold-glinted eyes blinked rapidly. "Goodbye, Bart. And—good luck, Son."

Bart took his hand, deeply moved, with the strange sense that this was another death—a worse one than Briscoe's. He tried to speak and couldn't.

"Well—" Raynor's mouth twisted into a wry grin. "Ouch! Careful with those claws. The Lhari don't shake hands."

He turned abruptly and went out of the door and out of Bart's life, while

Bart stood at the dome-window, feeling alone as he had never felt alone before.

He had to wait six days, and they felt like six eternities. He played the training tape over and over. With his Academy background, it wasn't nearly so difficult as he'd feared. He read and reread the set of papers identifying him as Astrogator, First Class, Bartol. Forged, he supposed. Or was there, somewhere, a real Bartol?

The last morning he slept uneasily late. He finished his last meal as a human, spent part of the day removing all traces of his presence from Raynor's home, burned the training tape, and finally got into the silky, silvery tights and cloak that Raynor had provided. He could use his hands now as if they belonged to him; he even found the claws handy and useful. He could write his signature, and copy out instructions from the training tape, without a moment's hesitation.

Toward dusk, a young Lhari slipped unobserved out of Raynor's house and hiked unnoticed to the edges of a small city nearby, where he mingled with the crowd and hired a skycab from an unobservant human driver to take him to the spaceport city. The skycab driver was startled, but not, Bart judged, unusually so, to pick up a Lhari passenger.

"Been doing a little sight-seeing on our planet, hey?"

"That's right," Bart said in Universal, not trying to fake his idea of the Lhari accent. Raynor had told him that only a few of the Lhari had that characteristic sibilant "r" and "s" and warned him against trying to imitate it. *Just speak naturally; there are dialects of Lhari, just as there are dialects of the different human languages, and they all sound different in Universal anyhow.* "Just looking around some."

The skycab driver frowned and looked down at his controls, and Bart felt curiously snubbed. Then he remembered. He himself had little to say to the Lhari when they spoke to him.

He was an alien, a monster. He couldn't expect to be treated like a human being any more.

When the skycab let him off before the spaceport, it felt strange to see how the crowds edged away from him as he made a way through them. He caught a glimpse of himself in one of the mirror-ramps, a tall thin strange form in a

metallic cloak, head crested with feathery white, and felt overwhelmingly homesick for his own familiar face.

He was beginning to feel hungry, and realized that he could not go into an ordinary restaurant without attracting attention. There were refreshment stands all over the spaceport, and he briefly considered getting a snack at one of these.

No, that was just putting it off. The time had to come when he must face his fear and test his disguise among the Lhari themselves. Reviewing his knowledge of the construction of spaceports, he remembered that one side was the terminal, where humans and visitors and passengers were freely admitted; the other side, for Lhari and their Mentorian employees only, contained—along with business offices of many sorts—a sort of arcade with amusement centers, shops and restaurants catering to the personnel of the Lhari ships. With nine or ten ships docking every day, Raynor had assured him that a strange Lhari face would be lost in the crowds very easily.

He went to one of the doors marked danger, Lhari lights beyond, and passed through the glaring corridor of offices and storage-warehouses, finally coming out into a sort of wide mall. The lights were fierce, but he could endure them without trouble now, though his head ached faintly. Raynor, testing his light tolerance, had assured him that he could endure anything the Lhari could, without permanent damage to his optic nerves, though he would have headaches until he got used to them.

There were small shops and what looked like bars, and a glass-fronted place with a sign lettered largely, in black letters, a Lhari phrase meaning roughly home away from home: meals served, spacemen welcome, reasonable.

Behind him a voice said in Lhari, "Tell me, does that sign mean what it says? Or is this one of those traps for separating the unwary spaceman from his hard-earned credits? How's the food?"

Bart carefully took hold of himself.

"I was just wondering that myself." He turned as he spoke, finding himself face to face with a young Lhari in the unadorned cloak of a spaceman without official rank. He knew the Lhari was young because his crest was still white.

The young Lhari extended his claws in the closed-fist, hidden-claw gesture of Lhari greeting. "Shall we take a chance? Ringg son of Rahan greets you."

"Bartol son of Berihun."

"I don't remember seeing you in the port, Bartol."

"I've mostly worked on the Polaris run."

"Way off there?" Ringg son of Rahan sounded startled and impressed. "You really get around, don't you? Shall we sit here?"

They sat on triangular chairs at a three-cornered table. Bart waited for Ringg to order, and ordered what he did. When it came, it was a sort of egg-and-fish casserole which Bart found extremely tasty, and he dug into it with pleasure. Allowing for the claws, Lhari table manners were not so much different from human—*and remember, their customs differ as much as ours do. If you do something differently, they'll just think you're from another planet with a different culture.*

"Have you been here long?"

"A day or so. I'm off the *Swiftwing*."

Bart decided to hazard his luck. "I was told there's a vacancy on the *Swiftwing*."

Ringg looked at him curiously. "There is," he said, "but I'd like to know how you found it out. Captain Vorongil said that anyone who talked about it would be sent to Kleeto for three cycles. But what happened to you? Miss your ship?"

"No, I've just been laying off—traveling, sight-seeing, bumming around," Bart said. "But I'm tired of it, and now I'd like to sign out again."

"Well, we could use another man. This is the long run we're making, out to Antares and then home, and if everybody has to work extra shifts, it's no fun. But if old Vorongil knows that there's been talk in the port about Klanerol jumping ship, or whatever happened to him, we'll all have to walk wide of his temper."

Bart was beginning to relax a little; Ringg apparently accepted him without scrutiny. At this close range Ringg did not seem a monster, but just a young fellow like himself, hearty, good-natured—in fact, not unlike Tommy.

Bart chased the thought away as soon as it sneaked into his brain—one of those *things*, like *Tommy*? Then, rather grimly, he reminded himself, *I'm one of those things*. He said irritably, "So how do I account for asking your captain for the place?"

Ringg cocked his fluffy crest to one side. "I know," he said, "*I* told you. I'll

say you're an old friend of mine. You don't know what Vorongil's like when he gets mad. But what he doesn't know, he won't shout about." He shoved back the triangular chair. "Who *did* tell you, anyway?"

This was the first real hurdle, and Bart's brain raced desperately, but Ringg was not listening for an answer. "I suppose somebody gossiped, or one of those fool Mentorians picked it up. Got your papers? What rating?"

"Astrogator first class."

"Klanerol was second, but you can't have everything, I suppose." Ringg led the way through the arcades, out across a guarded sector, passing half a dozen of the huge ships lying in their pits. Finally Ringg stopped and pointed. "This is the old hulk."

Bart had traveled only in Lhari passenger ships, which were new and fresh and sleek. This ship was enormous, ovoid like the egg of some space-monster, the sides dented and discolored, thin films of chemical discoloration lying over the glassy metallic hull.

Bart followed Ringg. This was real, it was happening. He was signing out for his first interstellar cruise on one of the Lhari ships. Not a Mentorian assistant, half-trusted, half-tolerated, but one of the crew themselves. *If I'm lucky*, he reminded himself grimly.

There was Lhari, in the black-banded officer's cloak, at the doorway. He glanced at Ringg's papers.

"Friend of mine," Ringg said, and Bart proffered his folder. The Lhari gave it a casual glance, handed it back.

"Old Baldy on board?" Ringg asked.

"Where else?" The officer laughed. "You don't think *he'd* relax with cargo not loaded, do you?"

They seemed casual and normal, and Bart's confidence was growing. They had accepted him as one of themselves. But the great ordeal still lay before him —an interview with the Lhari captain. And the idea had Bart sweating scared.

The corridors and decks seemed larger, wider, more spacious, but shabbier than on the clean, bright, commercial passenger decks Bart had seen. Dark-lensed men were rolling bales of cargo along on wheeled dollies. The corridors seemed endless. More to hear the sound of his own voice, and reassure himself of his ability to speak and be understood, than because he cared, he asked

Ringg, "What's your rating?"

"Well, according to the logbooks, I'm an Expert Class Two, Metals-Fatigue," said Ringg. "That sounds very technical and interesting. But what it means is just that I go all over the ship inch by inch, and when I finish, start all over again at the other end. Most of what I do is just boss around the maintenance crews and snarl at them about spots of rust on the paint."

They got into a small round elevator and Ringg punched buttons; it began to rise, slowly and creakily, toward the top. "This, for instance," Ringg said. "I've been yelling for a new cable for six months." He turned. "Take it easy, Bartol; don't let Vorongil scare you. He likes to hear the sound of his own voice, but we'd all walk out the lock without spacesuits for him."

The elevator slid to a stop. The sign in Lhari letters said *Level of Administration—Officers' Deck*. Ringg pushed at a door and said, "Captain Vorongil?"

"I thought you were on leave," said a Lhari voice, deeper and slower than most. "What are you doing, back here more than ten milliseconds before strap-in checks?"

Ringg stepped back for Bart to go inside. The small cabin, with an elliptical bunk slung from the ceiling and a triangular table, was dwarfed by a tall, thin Lhari, in a cloak with four of the black bands that seemed to denote rank among them. He had a deeply lined face with a lacework of tiny wrinkles around the slanted eyes. His crest was not the high, fluffy white of a young Lhari, but broken short near the scalp, grayish pink showing through, the little feathery ends yellowed with age. He growled, "Come in then, don't stand there. I suppose Ringg's told you what a tyrant I am? What do you want, feathertop?"

Bart remembered being told that this was the Lhari equivalent of "Kid" or "Youngster." He fumbled in the capacious folds of his cloak for his papers. His voice sounded shrill, even to himself.

"Bartol son of Berihun in respectful greeting, *rieko mori*." ("Honorable old-bald-one," the Lhari equivalent of "sir.") "Ringg told me there is a vacancy among the Astrogators, and I want to sign out."

Unmistakably, Vorongil's snort was laughter.

"So you've been talking, Ringg?"

Ringg retorted, "Better that I tell one man than that you have to hunt the

planet over—or run the long haul with the drive-room watches short by one man."

"Well, well, you're right," Vorongil growled. He glared at Bart. "On the last planet, one of our men disappeared. Jumped ship!" The creases around his eyes deepened, troubled. "Probably just gone on the drift, sight-seeing, but I wish he'd told me. As it is, I wonder if he's been hurt, killed, kidnaped."

Ringg said, "Who'd dare? It would be reported."

Bart knew, with a cold chill, that the missing Klanerol had not simply gone "on the drift." No Lhari port would ever see Klanerol, Second Class Astrogator, again.

"Bartol," mused the captain, riffling the forged papers. "Served on the Polaris run. Hm—you *are* a good long way off your orbit, aren't you? Never been out that way myself. All right, I'll take you on. You can do system programming? Good. Rating in Second Galaxy mathematics?"

He nodded, hauled out a sheet of thin, wax-coated fabric and his claws made rapid imprints in the surface. He passed it to Bart, pointed. Bart hesitated, and Vorongil said impatiently, "Standard agreement, no hidden clauses. Put your mark on it, feathertop."

Bart realized it was something like a fingerprint they wanted. *You'll pass anything but X-rays.* He pressed the top of one claw into the wax. Vorongil nodded, shoved it on a shelf without looking at it.

"So much for that," said Ringg, laughing, as they came out. "The Bald One was in a good temper. I'm going to the port and celebrate, not that this dim place is very festive. You?"

"I—I think I'll stay aboard."

"Well, if you change your mind, I'll be down there somewhere," Ringg said. "See you later, shipmate." He raised his closed fist in farewell, and went.

Bart stood in the corridor, feeling astounded and strange. He *belonged* here! He had a right to be on board the ship! He wasn't quite sure what to do next.

A Lhari, as short and fat as a Lhari could possibly be and still be a Lhari, came or rather waddled out of the captain's office. He saw Bartol and called, "Are you the new First Class? I'm Rugel, coordinator."

Rugel had a huge cleft darkish scar across his lip, and there were two bands on his cloak. He was completely bald, and he puffed when he walked. "Vorongil

asked me to show you around. You'll share quarters with Ringg—no sense shifting another man. Come down and see the chart rooms—or do you want to leave your kit in your cabin first?"

"I don't have much," Bart said.

Rugel's seamed lip widened. "That's the way—travel light when you're on the drift," he confirmed.

Rugel took him down to the drive rooms, and here for a moment, in wonder and awe, Bart almost forgot his disguise. The old Lhari led him to the huge computer which filled one wall of the room, and Bart was smitten with the universality of mathematics. Here was something he *knew* he could handle.

He could do this programming, easily enough. But as he stood before the banks of complex, yet beautifully familiar levers, the sheer exquisite complexity of it overcame him. To compute the movements of thousands of stars, all moving at different speeds in different directions in the vast swirling directionless chaos of the Universe—and yet to be sure that every separate movement would come out to within a quarter of a mile! It was something that no finite brain—man or Lhari—could ever accomplish, yet their limited brains had built these computers that *could* do it.

Rugel watched him, laughing softly. "Well, you'll have enough time down here. I like to have youngsters who are still in the middle of a love affair with their work. Come along, and I'll show you your cabin."

Rugel left him in a cabin amidships; small and cramped, but tidy, two of the oval bunks slung at opposite ends, a small table between them, and drawers filled with pamphlets and manuals and maps. Furtively, ashamed of himself, yet driven by necessity, Bart searched Ringg's belongings, wanting to get some idea of what possessions he ought to own. He looked around the shower and toilet facilities with extra care—this was something he *couldn't* slip up on and be considered even halfway normal. He was afraid Ringg would come in, and see him staring curiously at something as ordinary, to a Lhari, as a cake of soap.

He decided to go down to the port again and look around the shops. He was not afraid of being unable to handle his work. What he feared was something subtler—that the small items of everyday living, something as simple as a nail file, would betray him.

On his way he looked into the Recreation Lounge, filled with comfortable

seats, vision-screens, and what looked like simple pinball machines and mechanical games of skill. There were also stacks of tapereels and headsets for listening, not unlike those humans used. Bart felt fascinated, and wanted to explore, but decided he could do that later.

Somehow he took the wrong turn coming out of the Recreation Lounge, and went through a door where the sudden dimming of lights told him he was in Mentorian quarters. The sudden darkness made him stumble, thrust out his hands to keep from falling, and an unmistakably human voice said, "Ouch!"

"I'm sorry," Bart said in Universal, without thinking.

"I admit the lights are dim," said the voice tartly, and Bart found himself looking down, as his eyes adjusted to the new light level, at a girl.

She was small and slight, in a metallic blue cloak that swept out, like wings, around her thin shoulders; the hood framed a small, kittenlike face. She was a Mentorian, and she was human, and Bart's eyes rested with comfort on her face; she, on the other hand, was looking up with anxiety and uneasy distrust. *That's right—I'm a Lhari, a nonhuman freak!*

"I seem to have missed my way."

"What are you looking for, sir? The medical quarters are through here."

"I'm looking for the elevator down to the crew exits."

"Through here," she said, reopening the door through which he had come, and shading her large, lovely, long-lashed eyes with a slender hand. "You took the wrong turn. Are you new on board? I thought all ships were laid out exactly alike."

"I've only worked on passenger ships."

"I believe they are somewhat different," said the girl in good Lhari. "Well, that is your way, sir."

He felt as if he had been snubbed and dismissed.

"What is your name?"

She stiffened as if about to salute. "Meta of the house of Marnay Three, sir."

Bart realized he was doing something wholly out of character for a Lhari—chatting casually with a Mentorian. With a wistful glance at the pretty girl, he said a stiff "Thank you" and went down the ramp she had indicated. He felt horribly lonely. Being a freak wasn't going to be much fun.

CHAPTER EIGHT

He saw the girl again next day, when they checked in for blastoff. She was seated at a small desk, triangular like so much of the Lhari furniture, checking a register as they came out of the Decontam room, making sure they downed their greenish solution of microorganisms.

"Papers, please?" She marked, and Bart noticed that she was using a red pencil.

"Bartol," she said aloud. "Is that how you pronounce it?" She made small scribbles in a sort of shorthand with the red pencil, then made other marks with the black one in Lhari; he supposed the red marks were her own private memoranda, unreadable by the Lhari.

"Next, please." She handed a cup of the greenish stuff to Ringg, behind him. Bart went down toward the drive room, and to his own surprise, found himself wishing the girl were a mathematician rather than a medic. It would have been pleasant to watch her down there.

Old Rugel, on duty in the drive room, watched Bart strap himself in before the computer. "Make sure you check all dials at null," he reminded him, and Bart felt a last surge of panic.

This was his first cruise, except for practice runs at the Academy! Yet his rating called him an experienced man on the Polaris run. He'd had the Lhari training tape, which was supposed to condition his responses, but would it? He tried to clench his fists, drove a claw into his palm, winced, and commanded himself to stay calm and keep his mind on what he was doing.

It calmed him to make the routine check of his dials.

"Strapdown check," said a Lhari with a yellowed crest and a rasping voice. "New man, eh?" He gave Bart's straps perfunctory tugs at shoulders and waist, tightened a buckle. "Karol son of Garin."

Bells rang in the ship, and Bart felt the odd, tonic touch of fear. *This was it.*

Vorongil strode through the door, his banded cloak sweeping behind him, and took the control couch.

"Ready from fueling room, sir."

"Position," Vorongil snapped.

Bart heard himself reading off a string of figures in Lhari. His voice

sounded perfectly calm.

"Communication."

"Clear channels from Pylon Dispatch, sir." It was old Rugel's voice.

"Well," Vorongil said, slowly and almost reflectively, "let's take her up then."

He touched some controls. The humming grew. Then, swift, hard and crushing, weight mashed Bart against his couch.

"Position!" Vorongil's voice sounded harsh, and Bart fought the crushing weight of it. Even his eyeballs ached as he struggled to turn the tiny eye muscles from dial to dial, and his voice was a dim croak: "Fourteen seven sidereal twelve point one one four nine...."

"Hold it to point one one four six," Vorongil said calmly.

"Point one one four six," Bart said, and his claws stabbed at dials. Suddenly, in spite of the cold weight on his chest, the pain, the struggle, he felt as if he were floating. He managed a long, luxurious breath. He *could* handle it. He knew what he was doing.

He was an Astrogator....

Later, when Acceleration One had reached its apex and the artificial gravity made the ship a place of comfort again, he went down to the dining hall with Ringg and met the crew of the *Swiftwing*. There were twelve officers and twelve crewmen of various ratings like himself and Ringg, but there seemed to be little social division between them, as there would have been on a human ship; officers and crew joked and argued without formality of any kind.

None of them gave him a second look. Later, in the Recreation Lounge, Ringg challenged him to a game with one of the pinball machines. It seemed fairly simple to Bart; he tried it, and to his own surprise, won.

Old Rugel touched a lever at the side of the room. With a tiny whishing sound, shutters opened, the light of Procyon Alpha flooded them and he looked out through a great viewport into bottomless space.

Procyon Alpha, Beta and Gamma hung at full, rings gently tilted. Beyond them the stars burned, flaming through the shimmers of cosmic dust. The colors, the never-ending colors of space!

And he stood here, in a room full of monsters—*he was one of the monsters*—

"Which one of the planets was it we stopped on?" Rugel asked. "I can't tell

'em apart from this distance."

Bartol swallowed; he had almost said *the blue one*. He pointed. "The—the big one there, with the rings almost edge-on. I think they call it Alpha."

"It's their planet," said Rugel. "I guess they can call it what they want to. How about another game?"

Resolutely, Bart turned his back on the bewitching colors, and bent over the pinball machine.

The first week in space was a nightmare of strain. He welcomed the hours on watch in the drive room; there alone he was sure of what he was doing. Everywhere else in the ship he was perpetually scared, perpetually on tiptoe, perpetually afraid of making some small and stupid mistake. Once he actually called Aldebaran a red star, but Rugel either did not hear the slip or thought he was repeating what one of the Mentorians—there were two aboard besides the girl—had said.

The absence of color from speech and life was the hardest thing to get used to. Every star in the manual was listed by light-frequency waves, to be checked against a photometer for a specific reading, and it almost drove Bart mad to go through the ritual when the Mentorians were off duty and could not call off the color and the equivalent frequency type for him. Yet he did not dare skip a single step, or someone might have guessed that he could *see* the difference between a yellow and a green star before checking them.

The Academy ships had had the traditional human signal system of flashing red lights. Bart was stretched taut all the time, listening for the small codelike buzzers and ticks that warned him of filled tanks, leads in need of servicing, answers ready. Ringg's metal-fatigues testing kit was a bewildering muddle of boxes, meters, rods and earphones, each buzzing and clicking its characteristic warning.

At first he felt stretched to capacity every waking moment, his memory aching with a million details, and lay awake nights thinking his mind would crack under the strain. Then Alpha faded to a dim bluish shimmer, Beta was eclipsed, Gamma was gone, Procyon dimmed to a failing spark; and suddenly Bart's memory accustomed itself to the load, the new habits were firmly in place, and he found himself eating, sleeping and working in a settled routine.

He belonged to the *Swiftwing* now.

Procyon was almost lost in the viewports when a sort of upswept tempo began to run through the ship, an undercurrent of increased activity. Cargo was checked, inventoried and strapped in. Ringg was given four extra men to help him, made an extra tour of the ship, and came back buzzing like a frantic cricket. Bart's computers told him they were forging toward the sidereal location assigned for the first of the warp-drive shifts, which would take them some fifteen light-years toward Aldebaran.

On the final watch before the warp-drive shift, the medical officer came around and relieved the Mentorians from duty. Bart watched them go, with a curious, cold, crawling apprehension. Even the Mentorians, trusted by the Lhari —even these were put into cold-sleep! Fear grabbed his insides.

No human had ever survived the shift into warp-drive, the Lhari said. Briscoe, his father, Raynor Three—they thought they had proved that the Lhari lied. If they were right, if it was a Lhari trick to reinforce their stranglehold on the human worlds and keep the warp-drive for themselves, then Bart had nothing to fear. But he was afraid.

Why did the Mentorians endure this, never quite trusted, isolated among aliens?

Raynor Three had said, *Because I belong in space, because I'm never happy anywhere else*. Bart looked out the viewport at the swirl and burn of the colors there. Now that he could never speak of the colors, it seemed he had never been so wholly and wistfully aware of them. They symbolized the thing he could never put into words.

So that everyone can have this. Not just the Lhari.

Rugel watched the Mentorians go, scowling. "I wish medic would find a way to keep them alive through warp," he said. "My Mentorian assistant could watch that frequency-shift as we got near the bottom of the arc, and I'll bet she could *see* it. They can see the changes in intensity faster than I can plot them on the photometer!"

Bart felt goosebumps break out on his skin. Rugel spoke as if the certain death of humans, Mentorians, was a fact. Didn't the Lhari themselves know it was a farce? *Or was it?*

Vorongil himself took the controls for the surge of Acceleration Two, which

would take them past the Light Barrier. Bart, watching his instruments to exact position and time, saw the colors of each star shift strangely, moment by moment. The red stars seemed hard to see. The orange-yellow ones burned suddenly like flame; the green ones seemed golden, the blue ones almost green. Dimly, he remembered the old story of a "red shift" in the lights of approaching stars, but here he saw it pure, a sight no human eyes had ever seen. A sight that *no* eyes had seen, human or otherwise, for the Lhari could not see it....

"Time," he said briefly to Vorongil, "Fifteen seconds...."

Rugel looked across from his couch. Bart felt that the old, scarred Lhari could read his fear. Rugel said through a wheeze, "No matter how old you get, Bartol, you're still scared when you make a warp-shift. But relax, computers don't make mistakes."

"Catalyst," Vorongil snapped, "Ready—*shift!*"

At first there was no change; then Bart realized that the stars, through the viewport, had altered abruptly in size and shade and color. They were not sparks but strange streaks, like comets, crossing and recrossing long tails that grew, longer and longer, moment by moment. The dark night of space was filled with a crisscrossing blaze. They were moving faster than light, they saw the light left by the moving Universe as each star hurled in its own invisible orbit, while they tore incredibly through it, faster than light itself....

Bart felt a curious, tingling discomfort, deep in his flesh; almost an itching, a stinging in his very bones.

Lhari flesh is no different from ours....

Space, through the viewport, was no longer space as he had come to know it, but a strange eerie limbo, the star-tracks lengthening, shifting color until they filled the whole viewport with shimmering, gray, recrossing light. The unbelievable reaction of warp-drive thrust them through space faster than the lights of the surrounding stars, faster than imagination could follow.

The lights in the drive chamber began to dim—or was he blacking out? The stinging in his flesh was a clawed pain.

Briscoe lived through it....

They say.

The whirling star-tracks fogged, coiled, turned colorless worms of light, went into a single vast blur. Dimly Bart saw old Rugel slump forward, moaning

softly; saw the old Lhari pillow his bald head on his veined arms. Then darkness took him; and thinking it was death, Bart felt only numb, regretful failure. *I've failed, we'll always fail. The Lhari were right all long.*

But we tried! By God, we tried!

"Bartol?" A gentle hand, cat claws retracted, came down on his shoulder. Ringg bent over him. Good-natured rebuke was in his voice. "Why didn't you tell us you got a bad reaction, and ask to sign out for this shift?" he demanded. "Look, poor old Rugel's passed out again. He just won't admit he can't take it—but one idiot on a watch is enough! Some people just feel as if the bottom's dropped out of the ship, and that's all there is to it."

Bart hauled his head upright, fighting a surge of stinging nausea. His bones itched inside and he was damnably uncomfortable, but he was alive.

"I'm—fine."

"You look it," Ringg said in derision. "Think you can help me get Rugel to his cabin?"

Bart struggled to his feet, and found that when he was upright he felt better. "Wow!" he muttered, then clamped his mouth shut. He was supposed to be an experienced man, a Lhari hardened to space. He said woozily, "How long was I out?"

"The usual time," Ringg said briskly, "about three seconds—just while we hit peak warp-drive. Feels longer, so they tell me, sometimes—time's funny, beyond light-speeds. The medic says it's purely psychological. I'm not so sure. I *itch*, blast it!"

He moved his shoulders in a squirming way, then bent over Rugel, who was moaning, half insensible. "Catch hold of his feet, Bartol. Here—ease him out of his chair. No sense bothering the medics this time. Think you can manage to help me carry him down to the deck?"

"Sure," Bart said, finding his feet and his voice. He felt better as they moved along the hallway, the limp, muttering form of the old Lhari insensible in their arms. They reached the officer's deck, got Rugel into his cabin and into his bunk, hauled off his cloak and boots. Ringg stood shaking his head.

"And they say Captain Vorongil's so tough!"

Bart made a questioning noise.

"Why, just look," said Ringg. "He knows it would make poor old Rugel feel

as if he wasn't good for much—to order him into his bunk and make him take dope like a Mentorian for every warp-shift. So we have this to go through at every jump!" He sounded cross and disgusted, but there was a rough, boyish gentleness as he hauled the blanket over the bald old Lhari. He looked up, almost shyly.

"Thanks for helping me with Old Baldy. We usually try to get him out before Vorongil officially takes notice. Of course, he sort of keeps his back turned," Ringg said, and they laughed together as they turned back to the drive room. Bart found himself thinking, *Ringg's a good kid*, before he pulled himself up, in sudden shock.

He *had* lived through warp-drive! Then, indeed, the Lhari had been lying all along, the vicious lie that maintained their stranglehold monopoly of star-travel. He was their enemy again, the spy within their gates, like Briscoe, to be hunted down and killed, but to bring the message, loud and clear, to everyone: *The Lhari lied! The stars can belong to us all!*

When he got back to the drive room, he saw through the viewport that the blur had vanished, the star-trails were clear, distinct again, their comet-tails shortening by the moment, their colors more distinct.

The Lhari were waiting, a few poised over their instruments, a few more standing at the quartz window watching the star-trails, some squirming and scratching and grousing about "space fleas"—the characteristic itching reaction that seemed to be deep down inside the bones.

Bart checked his panels, noted the time when they were due to snap back into normal space, and went to stand by the viewport. The stars were reappearing, seeming to steady and blaze out in cloudy splendor through the bright dust. They burned in great streamers of flame, and for the moment he forgot his mission again, lost in the beauty of the fiery lights. He drew a deep, shaking gasp. It was worth it all, to see this! He turned and saw Ringg, silent, at his shoulder.

"Me, too," Ringg said, almost in a whisper. "I think every man on board feels that way, a little, only he won't admit it." His slanted gray eyes looked quickly at Bart and away.

"I guess we're almost down to L-point. Better check the panel and report nulls, so medic can wake up the Mentorians."

The *Swiftwing* moved on between the stars. Aldebaran loomed, then faded in the viewports; another shift jumped them to a star whose human name Bart did not know. Shift followed shift, spaceport followed spaceport, sun followed sun; men lived on most of these worlds, and on each of them a Lhari spaceport rose, alien and arrogant. And on each world men looked at Lhari with resentful eyes, cursing the race who kept the stars for their own.

Cargo amassed in the holds of the *Swiftwing*, from worlds beyond all dreams of strangeness. Bart grew, not bored, but hardened to the incredible. For days at a time, no word of human speech crossed his mind.

The blackout at peak of each warp-shift persisted. Vorongil had given him permission to report off duty, but since the blackouts did not impair his efficiency, Bart had refused. Rugel told him that this was the moment of equilibrium, the peak of the faster-than-light motion.

"Perhaps a true limiting speed beyond which nothing will ever go," Vorongil said, touching the charts with a varnished claw. Rugel's scarred old mouth spread in a thin smile.

"Maybe there's no such thing as a limiting speed. Someday we'll reach true simultaneity—enter warp, and come out just where we want to be, at the same time. Just a split-second interval. That will be real transmission."

Ringg scoffed, "And suppose you get even better—and come out of warp *before* you go into it? What then, Honorable Bald One?"

Rugel chuckled, and did not answer. Bart turned away. It was not easy to keep on hating the Lhari.

There came a day when he came on watch to see drawn, worried faces; and when Ringg came into the drive room they threw their levers on *automatic* and crowded around him, their crests bobbing in question and dismay. Vorongil seemed to emit sparks as he barked at Ringg, "You found it?"

"I found it. Inside the hull lining."

Vorongil swore, and Ringg held up a hand in protest. "I only *locate* metals fatigue, sir—I don't *make* it!"

"No help for it then," Vorongil said. "We'll have to put down for repairs. How much time do we have, Ringg?"

"I give it thirty hours," Ringg said briefly, and Vorongil gave a long shrill

whistle. “Bartol, what’s the closest listed spaceport?”

Bart dived for handbooks, manuals, comparative tables of position, and started programming information. The crew drifted toward him, and by the time he finished feeding in the coded information, a row three-deep of Lhari surrounded him, including all the officers. Vorongil was right at his shoulder when Bart slipped on his earphones and started decoding the punched strips that fed out the answers from the computer.

“Nearest port is Cottman Four. It’s almost exactly thirty hours away.”

“I don’t like to run it that close.” Vorongil’s face was bitten deep with lines. He turned to Ramillis, head of Maintenance. “Do we need spare parts? Or just general repairs?”

“Just repairs, sir. We have plenty of shielding metal. It’s a long job to get through the hulls, but there’s nothing we can’t fix.”

Vorongil flexed his clawed hands nervously, stretching and retracting them. “Ringg, you’re the fatigue expert. I’ll take your word for it. Can we make thirty hours?”

Ringg looked pale and there was none of his usual boyish nonsense when he said, “Captain, I swear I wouldn’t risk Cottman. You know what crystallization’s like, sir. We can’t get through that hull lining to repair it in space, if it *does* go before we land. We wouldn’t have the chance of a hydrogen atom in a tank of halogens.”

Vorongil’s slanted eyebrows made a single unbroken line. “That’s the word then. Bartol, find us the closest star with a planet—spaceport or not.”

Bart’s hands were shaking with sudden fear. He checked each digit of their present position, fed it into the computer, waited, finally wet his lips and plunged, taking the strip from a computer.

“This small star, called Meristem. It’s a—” he bit his lip, hard; he had almost said *green*—"type Q, two planets with atmosphere within tolerable limits, not classified as inhabited.”

“Who owns it?”

“I don’t have that information on the banks, sir.”

Vorongil beckoned the Mentorian assistant. So apart were Lhari and Mentorian on these ships that Bart did not even know his name. He said, “Look up a star called Meristem for us.” The Mentorian hurried away, came back after

a moment with the information that it belonged to the Second Galaxy Federation, but was listed as unexplored.

Vorongil scowled. "Well, we can claim necessity," he said. "It's only eight hours away, and Cottman's thirty. Bartol, plot us a warp-drive shift that will land us in that system, and on the inner of the two planets, within nine hours. If it's a type Q star, that means dim illumination, and no spaceport mercury-vapor installations. We'll need as much sunlight as we can get."

It was the first time that Bart, unaided, had had the responsibility of plotting a warp-drive shift. He checked the coordinates of the small green star three times before passing them along to Vorongil. Even so, when they went into Acceleration Two, he felt stinging fear. *If I plotted wrong, we could shift into that crazy space and come out billions of miles away....*

But when the stars steadied and took on their own colors, the blaze of a small green sun was steady in the viewport.

"Meristem," Vorongil said, taking the controls himself. "Let's hope the place is really uninhabited and that catalogue's up to date, lads. It wouldn't be any fun to burn up some harmless village, or get shot at by barbarians—and we're setting down with no control-tower signals and no spaceport repair crews. So let's hope our luck holds out for a while yet."

Bart, feeling the minute, unsteady trembling somewhere in the ship —*Imagination*, he told himself, *you can't feel metal-fatigue somewhere in the hull lining*—echoed the wish. He did not know that he had already had the best luck of his unique voyage, or realize the fantastic luck that had brought him to the small green star Meristem.

CHAPTER NINE

The crews of repairmen were working down in the hull, and the *Swiftwing* was a hell of clanging noise and shuddering heat. Maintenance was working overtime, but the rest of the crew, with nothing to do, stood around in the recreation rooms, tried to play games, cursed the heat and the dreary dimness through the viewports, and twitched at the boiler-factory racket from the holds.

Toward the end of the third day, the biologist reported air, water and gravity well within tolerable limits, and Captain Vorongil issued permission for anyone who liked, to go outside and have a look around.

Bart had a sort of ship-induced claustrophobia. It was good to feel solid ground under his feet and the rays of a sun, even a green sun, on his back. Even more, it was good to get away from the constant presence of his shipmates. During this enforced idleness, their presence oppressed him unendurably—so many tall forms, gray skins, feathery crests. He was always alone; for a change, he felt that he'd like to be alone without Lhari all around him.

But as he moved away from the ship, Ringg dropped out of the hatchway and hailed him. "Where are you going?"

"Just for a walk."

Ringg drew a deep breath of weariness. "That sounds good. Mind if I come along?"

Bart did, but all he could say was, "If you like."

"How about let's get some food from the rations clerk, and do some exploring?"

The sun overhead was a clear greenish-gold, the sky strewn with soft pale clouds that cast racing shadows on the soft grass underfoot, fragrant pinkish-yellow stuff strewn with bright vermilion puff-balls. Bart wished he were alone to enjoy it.

"How are the repairs coming?"

"Pretty well. But Karol got his hand half scorched off, poor fellow. Just luck the same thing didn't happen to me." Ringg added. "You know that Mentorian —the young one, the medic's assistant?"

"I've seen her. Her name's Meta, I think." Suddenly, Bart wished the Mentorian girl were with him here. It would be nice to hear a human voice.

"Oh, is it a female? Mentorians all look alike to me," Ringg said, while Bart controlled his face with an effort. "Be that as it may, she saved me from having the same thing happen. I was just going to lean against a strip of sheet metal when she *screamed* at me. Do you think they can really *see* heat vibrations? She called it *red*-hot."

They had reached a line of tall cliffs, where a steep rock-fall divided off the plain from the edge of the mountains. A few slender, drooping, gold-leaved trees bent graceful branches over a pool. Bart stood fascinated by the play of green sunlight on the emerald ripples, but Ringg flung himself down full length on the soft grass and sighed comfortably. "Feels good."

"Too comfortable to eat?"

They munched in companionable silence. "Look," said Ringg at last, pointing toward the cliffs, "Holes in the rocks. Caves. I'd like to explore them, wouldn't you?"

"They look pretty gloomy to me. Probably full of monsters."

Ringg patted the hilt of his energon-ray. "This will handle anything short of an armor-plated saurian."

Bart shuddered. As part of uniform, he, too, had been issued one of the energon-rays; but he had never used it and didn't intend to. "Just the same, I'd rather stay out here in the sun."

"It's better than vitamin lamps," Ringg admitted, "even if it's not very bright."

Bart wondered, suddenly and worriedly, about the effects of green sunburn on his chemically altered skin tone.

"Well, let's enjoy it while we can," Ringg said, "because it seems to be clouding over. I wouldn't be surprised if it rained." He yawned. "I'm getting bored with this voyage. And yet I don't want it to end, because then I'll have to fight it out all over again with my family. My father owns a hotel, and he wants me in the family business, not five hundred light-years away. None of our family have ever been spacemen before," he explained, "and they don't understand that living on one planet would drive me out of my mind." He sighed. "How did you explain it to your people—that you couldn't be happy in the mud? Or are you a career man?"

"I guess so. I never thought about doing anything else," Bart said slowly,

Ringg's story had touched him; he had never realized quite so fully how much alike the two races were, how human the Lhari problems and dreams could seem. *Why, of course, the Lhari aren't all spacemen. They have hotel keepers and garbage men and dentists just as we do. Funny, you never think of them except in space.*

"My mother died when I was very young," Bart said, choosing his words very carefully. "My father owned a fleet of interplanetary ships."

"But you wanted the real thing, deep space, the stars," Ringg said. "How did he feel about that?"

"He would have understood," Bart said, unable to keep emotion out of his voice, "but he's dead now. He died, not long ago."

Ringg's eyes were bright with sympathy. "While you were off on the drift? Bad luck," he said gently. He was silent, and when he spoke again it was in a very different tone.

"But some of the older generation—I had a professor in training school, funny old chap, bald as the hull of the *Swiftwing*. Taught us cosmic-ray analysis, and what he didn't know about spiral nebulae could be engraved on my fifth toe-claw, and he'd never been off the face of the planet. Not even to one of the moons! He was the supervisor of my student lodge, and oh, was he a—" The phrase Ringg used meant, literally, *a soft piece of cake*.

"His feet may have been buried in mud, but his head was off in the Great Nebula. We had some wild times," Ringg reminisced. "We'd slip away to the city—strictly against rules, it was an old-style school—and draw lots for one of us to stay home and sign in for all twelve. You see, he'd sit there reading, and when one of us came in, just shove the wax at us, with his nose in a text on cosmic dust, never looking up. So the one who stayed home would scrawl a name on it, walk out the back door, come around and sign in again. When there were twelve signed in, of course, the old chap would go up to bed, and late that night the one who stayed in would sneak down and let us in."

Ringg sat up suddenly, touching his cheek. "Was that a drop of rain? And the sun's gone. I suppose we ought to start back, though I hate to leave those caves unexplored."

Bart bent to gather up the debris of their meal. He flinched as something hard struck his arm. "Ouch! What was that?"

Ringg cried out in pain. "It's hail!"

Sharp pieces of ice were suddenly pelting, raining down all around them, splattering the ground with a harsh, bouncing clatter. Ringg yelled, "Come on—it's big enough to *flatten* you!"

It looked to Bart as if it were at least golf-ball size, and seemed to be getting bigger by the moment. Lightning flashed around them in sudden glare. They ducked their heads and ran.

"Get in under the lee of the cliffs. We couldn't possibly make it back to the *Swift*—" Ringg's voice broke off in a cry of pain; he slumped forward, pitched to his knees, then slid down and lay still.

"What's the matter?" Bart, arm curved to protect his skull, bent over the fallen Lhari, but Ringg, his forehead bleeding, lay insensible. Bart felt sharp pain in his arm, felt the hail hard as thrown stones raining on his head. Ringg was out cold. *If they stayed in this*, Bart thought despairingly, *they'd both be dead!*

Crouching, trying to duck his head between his shoulders, Bart got his arms under Ringg's armpits and half-carried, half-dragged him under the lee of the cliffs. He slipped and slid on the thickening layer of ice underfoot, lost his footing, and came down, hard, one arm twisted between himself and the cliff. He cried out in pain, uncontrollably, and let Ringg slip from his grasp. The Lhari boy lay like the dead.

Bart bent over him, breathing hard, trying to get his breath back. The hail was still pelting down, showing no signs of lessening. About five feet away, one of the dark gaps in the cliff showed wide and menacing, but at least, Bart thought, the hail couldn't come in there. He stooped and got hold of Ringg again. A pain like fire went through the wrist he had smashed against the rock. He set his teeth, wondering if it had broken. The effort made him see stars, but he managed somehow to hoist Ringg up again and haul him through the pelting hail toward the yawning gap. It darkened around them, and, blessedly, the battering, bruising hail could not reach them. Only an occasional light splinter of ice blew with the bitter wind into the mouth of the cave.

Bart laid Ringg down on the floor, under the shelter of the rock ceiling. He knelt beside him, and spoke his name, but Ringg just moaned. His forehead was covered with blood.

Bart took one of the paper napkins from the lunch sack and carefully wiped some of it away. His stomach turned at the deep, ugly cut, which immediately started oozing fresh blood. He pressed the edges of the cut together with the napkin, wondering helplessly how much blood Ringg could lose without danger, and if he had concussion. If he tried to go back to the ship and fetch the medic for Ringg, he'd be struck by hail himself. From where he stood, it seemed that the hailstones were getting bigger by the minute.

Ringg moaned, but when Bart knelt beside him again he did not answer. Bart could hear only the rushing of wind, the noise of the splattering hail and a sound of water somewhere—*or was that a rustle of scales, a dragging of strange feet?* He looked through the darkness into the depths of the cave, his hand on his shock-beam. He was afraid to turn his back on it.

This is nonsense, he told himself firmly, *I'll just walk back there and see what there is.*

At his belt he had the small flashlamp, excessively bright, that was, like the energon-beam shocker, a part of regulation equipment. He took it out, shining it on the back wall of the cave; then drew a long breath of startlement and for a moment forgot Ringg and his own pain.

For the back wall of the cave was an exquisite fall of crystal! Minerals glowed there, giant crystals, like jewels, crusted with strange lichen-like growths and colors. There were pale blues and greens and, shimmering among them, a strangely colored crystalline mineral that he had never seen before. It was blue—*No*, Bart thought, *that's just the light, it's more like red—no, it can't be like* both *of them at once, and it isn't really like either. In this light—*

Ringg moaned, and Bart, glancing round, saw that he was struggling to sit up. He ran back to him, dropping to his knees at Ringg's side. "It's all right, Ringg, lie still. We're under cover now."

"Wha' happened?" Ringg said blurrily. "Head hurts—all sparks—all the pretty lights—can't *see* you!" He fumbled with loose, uncoordinated fingers at his head and Bart grabbed at him before he poked a claw in his eye. "Don't *do* that," Ringg complained, "can't *see*—"

He must have a bad concussion then. That's a nasty cut. Gently, he restrained the Lhari boy's hands.

"Bartol, what happened?"

Bart explained. Ringg tried to move, but fell limply back.

"Weren't you hurt? I thought I heard you cry out."

"A cut or two, but nothing serious," Bart said. "I think the hail's stopped. Lie still, I'd better go back to the ship and get help."

"Give me a hand and I can walk," Ringg said, but when he tried to sit up, he flinched, and Bart said, "You'd better lie still." He knew that head injuries should be kept very quiet; he was almost afraid to leave Ringg for fear the Lhari boy would have another delirious fit and hurt himself, but there was no help for it.

The hail had stopped, and the piled heaps were already melting, but it was bitterly cold. Bart wrapped himself in the silvery cloak, glad of its warmth, and struggled back across the slushy, ice-strewn meadow that had been so pink and flowery in the sunshine. The *Swiftwing*, a monstrous dark egg looming in the twilight, seemed like home. Bart felt the heavenly warmth close around him with a sigh of pure relief, but the Second Officer, coming up the hatchway, stopped in consternation:

"You're covered with blood! The hailstorm—"

"I'm all right," Bart said, "but Ringg's been hurt. You'll need a stretcher." Quickly, he explained. "I'll come with you and show you—"

"You'll do no such thing," the officer said. "You look as if you'd been caught out in a meteor shower, feathertop! We can find the place. You go and have those cuts attended to, and—what's wrong with your wrist? Broken?"

Bart heard, like an echo, the frightening words: *Don't break any bones. You won't pass an X-ray.*

"It's all right, sir. When I get washed up—"

"That's an *order*," snapped the officer, "do you think, on this pestilential unlucky planet, we can afford any *more* bad luck? Metals fatigue, Karol burned so badly the medic thinks he may never use his hand again, and now you and Ringg getting yourselves laid up and out of action? The medic will help me with Ringg; that Mentorian girl can look after you. Get moving!"

He hurried away, and Bart, his head beginning to hurt, walked slowly up the ramp. His whole arm felt numb, and he supported it with his good hand.

In the small infirmary, Karol lay groaning in a bunk, his arm bound in bandages, his head moving from side to side. The Mentorian girl Meta turned,

charging a hypo. She looked pale and drawn. She went to Karol, uncovering his other arm, and made the injection; almost immediately the moaning stopped and Karol lay still. Meta sighed and drew a hand over her brow, brushing away feathery wisps that escaped from the cap tied over her hair.

"Bartol? You're hurt? Not more burns, I hope?"

She looks just like a fluffy little kitten, Bart thought incongruously. Fatigue was beginning to blur his reactions.

"Only a few cuts," he said, in Universal, though Meta had spoken Lhari. In his weariness and pain he was homesick for the sound of a familiar word. "Ringg and I were both caught in the hailstorm. He's badly hurt."

"Sit down here."

Bart sat. Meta's hands were skillful and cool as she sponged the blood away from his forehead and sprayed it with some pleasantly cold, mint-smelling antiseptic. Bart leaned back, tireder than he knew, half-closing his eyes.

"That hail must have been enormous; we heard it through the hull. Whatever possessed you to go out into it?"

"It wasn't hailing when we left," Bart said wearily. "The sun was as nice and green as it could be." He bit the words off, realizing he had made a slip, but the girl seemed not to hear, fastening a strip of plastic over a cut. She picked up his wrist. Bart flinched in spite of himself, and Meta nodded. "I was afraid of that; it may be broken. Better let me X-ray it."

"No!" Bart said harshly. "It's all right, I just twisted it. Nothing's broken. Just strap it up."

"It's pretty badly swollen," the girl said, moving it gently. "Does that hurt? I thought so."

Bart set his teeth against a cry. "It's all right, I tell you. Just because it's black and blue—"

He heard her breath jolt out, her fingers clenched painfully on his wounded wrist. She did not hear his cry this time. "And the sun was nice and *green*," she whispered. *"What are you?"*

Bart felt himself slip sidewise; he thought for a moment that he would faint where he sat. Terrified, he looked up at Meta. Their eyes met, and she said, hardly moving her pale lips, "Your eyes—they're like mine. Your eyelashes—dark, not white. *You're not a Lhari!*"

The pain in his wrist suddenly blurred everything else, but Meta suddenly realized she was gripping it; she gave a little, gentle cry, and cradled the abused wrist in her palm.

"No wonder you didn't want it X-rayed," she whispered. Biting her lip, she glanced, terrified, at Karol, unconscious in the bunk. "No, he can't hear us; I gave him a heavy shot of hypnin, poor fellow."

"Go ahead," Bart said bitterly, "yell for your keepers."

Her gray eyes blazed at him for a moment; then, gently, she laid his wrist on the table, went to the infirmary door and locked it on the inside. She turned around, her face white; even her lips had lost their color. "Who are you?" she whispered.

"Does it matter now?"

Shocked comprehension swept over her face. "You don't think I'd *tell* them," she whispered. "I heard talk, in the Procyon port, of a spy that had managed to get through on a Lhari ship." Her face twisted. "You—you must know about the man on the*Multiphase*, you know they'll—make sure I can't—hide anything dangerous to the Lhari at the end of the voyage."

"Meta—" concern for her swept over him—"what will they do to you when they find out that you know and—didn't tell?"

Her gray eyes were wide as a kitten's. "Why, nothing. The Lhari would never *hurt* anyone, would they?"

Brainwashed? He set his mouth grimly. "I hope you never find out different."

"Why would they need to?" she asked, reasonably. "They could just erase the memory. I never heard of a Lhari actually hurting anyone. But something like this—" She wavered, looking at him. "You look so *much* like a Lhari! How was it done? How could they do it? Poor fellow, you must be the—the loneliest man in the Universe!"

Her voice was compassionate. Bart felt his throat tighten, and had the awful feeling that he was going to cry. He reached with his good hand for hers, seeking the comfort of a human touch, but she flinched instinctively away.

He was a monster to this pretty girl....

"It looks so real," she said helplessly. "Yes, now I can see, you have tiny moons at the base of the nail, and the Lhari don't." Her face worked. "It's—it's

horrifying! How could you—"

There was a noise in the corridor. Meta gasped and ran to unlock the door, stood back as the medic and the Second Officer came in, staggering under Ringg's weight. Carefully, they put him into a bunk. The medic straightened, shaking his crest.

"Did you get that wrist taken care of, Bartol?"

Meta stepped between Bart and the officer, reaching for a roll of bandage. "I'm working on it now, *rieko mori*," she said. "It only wants strapping up." But her fingers trembled as she wound the gauze, pulling each fold tight.

"How's—Ringg?"

"Needs quiet," grunted the medic, "and a few sutures. Lucky you got him under cover when you did."

Ringg said weakly from his bunk, "Bartol saved my life. I can think of plenty who'd have run for cover, instead of staying out in that stuff long enough to drag me inside. Thanks, shipmate."

Meta's hand, with a swift hard pressure, lingered on Bart's shoulder as she cut the bandage and fastened the end. "I don't think that will bother you much now," she whispered, fleetingly. "I didn't dare say it was broken or they'd insist on X-rays. If it hurts I'll get you something later for the pain. If you keep it strapped up tight—"

"It will do," Bart said aloud. The tight bandage made it feel a little better, but he felt sick and dizzy, and when the medic turned and saw him, the officer said brusquely "Watch off for you, Bartol. I'll fix the sign-out sheet, but you go to your cabin and get yourself at least four hours of sleep. *That's an order.*"

Bart stumbled out of the cabin with relief. Safe in his own quarters, he flung himself down on his bunk, shaking all over. He'd come safely through one more nightmare, one more terror—for the moment! Had he put Meta in danger, too? Was there no end to this ceaseless fear? Not only for himself, but for others, the innocent bystanders who stumbled into plots they did not understand?

You're doing this for the stars. It's bigger than your fear. It's bigger than you are, or any of the others....

He was beginning to think it was a lot too big for him.

CHAPTER TEN

The green-sun Meristem lay far behind them. Karol's burns had healed; only a faint pattern on Ringg's forehead showed where six stitches had closed the ugly wound in his skull. Bart's wrist, after a few days of nightmarish pain when he tried to pick up anything heavy, had healed. Two more warp-drive shifts through space had taken the *Swiftwing* far, far out to the rim of the known galaxy, and now the great crimson coal of Antares burned in their viewports.

Antares had twelve planets, the outermost of which—far away now, at the furthest point in its orbit from the point of the *Swiftwing*'s entry into the system—was a small captive sun. No larger than the planet Earth, it revolved every ninety years around its huge primary.

Small as it was, it was blazingly blue-white brilliant, and had a tiny planet of its own. After their stop on Antares Seven—the largest of the inhabited planets in this system, where the Lhari spaceport was located—they would make a careful orbit around the great red primary, and land on the tiny worldlet of the blue-white secondary before leaving the Antares system.

As Bart watched Antares growing in the viewports, he felt a variety of emotions. On the one hand, he was relieved that as his voyage in secrecy neared its official destination, he had as yet not incurred unmasking.

But he felt uncertain about his father's co-conspirators. Would they return him to human form and send him back to Vega, his part ended? Or would they, unthinkably, demand that he go on into the Lhari Galaxy? What would he do, if they did?

At one moment he entertained fantasies of going on into the Lhari worlds, returning victorious with the secret of their fueling location, or of the star-drive itself. At another, he could not wait to be free of it all. He longed for the society of his own people, yet ached to think that this voyage between the stars must end so soon.

They made planetfall at the largest Lhari spaceport Bart had seen; as always, the Second Officer was the first to go through Decontam and ashore, returning with exchanged mail and messages for the *Swiftwing*'s crew. He laughed when he gave Bartol a sealed packet. "So you're not quite the orphan we've always thought!"

Bart took it, his heart suddenly pounding, and walked away through the groups of officers and crew eagerly debating how they would spend their port leave. He knew what it would be.

It was on the letterhead of Eight Colors, and it contained no message. Only an address—and a time.

He slipped away unobserved to the Mentorian part of the ship to borrow a cloak from Meta. She did not ask why he wanted it, and stopped him when he would have told her. "I'd—rather not know."

She looked very small and very scared, and Bart wished he could comfort her, but he knew she would shrink from him, repelled and horrified by his Lhari skin, hair, claws.

Yet she reached for his hand, gripping it hard in her own dainty one. "Bartol, be careful," she whispered, then stopped. "Bartol—that's a Lhari name. What's your real one?"

"Bart. Bart Steele."

"Good luck, Bart." There were tears in her gray eyes.

With the blue cloak folded around his face, hands tucked in the slits at the side, he felt almost like himself. And as the strange crimson twilight folded down across the streets, laden with spicy smells and little, fragrant gusts of wind, he almost savored the sense of being a conspirator, of playing for high stakes in a network of intrigue between the stars. He was off on an adventure, and meant to enjoy it.

The address he had been given was a lavish estate, not far from the spaceport, across a little gleaming lake that shimmered red, indigo, violet in the crimson sunset, surrounded by a low wall of what looked like purple glass. Bart, moving slowly through the gate, felt that eyes were watching him, and forced himself to walk with slow dignity.

Up the path. Up a low flight of black-marble stairs. A door swung open and shut again, closing out the red sunset, letting him into a room that seemed dim after the months of Lhari lights. There were three men in the room, but his eyes were drawn instantly to one, standing against an old-fashioned fireplace.

He was very tall and quite thin, and his hair was snow-white, though he did not look old. Bart's first incongruous thought was, *He'd make a better Lhari than I would.* His firm, commanding voice told Bart at once that this was the man in

charge. “You are Bartol?” He extended his hand.

Bart took it—and found himself gripped in a judo hold. The other two men, leaping to place behind him, felt all over his body, not gently.

“No weapons, Montano.”

“Look here—”

“Save it,” Montano said. “If you’re the right person, you’ll understand. If not, you won’t have much time to resent it. A very simple test. What color is that divan?”

“Green.”

“And those curtains?”

“Darker green, with gold and red figures.”

The men released him, and the white-haired man smiled.

“So you actually did it, Steele! I thought for sure the code message was a fake.” He stepped back and looked Bart over from head to foot, whistling. “Raynor Three is a genius! Claws and everything! What a deuce of a risk to take though!”

“You know my name,” Bart said, “but who are you?”

Suspicion came back into the dark eyes. “Does that Mentorian cloak mean —you’ve lost your memories, too?”

“No,” said Bart, “it’s simpler than that. I’m not Rupert Steele. I’m—” his voice caught—"I’m his son.”

The man looked startled and shocked. “I suppose that means Rupert is dead. Dead! It came a little before he expected it, then. So you’re Bart.” He sighed. “My name’s Montano. This is Hedrick, and I suppose you recognize Raynor Two.”

Bart blinked. It was the same face, but it was not grim like Raynor One’s, nor expressive and kindly like that of Raynor Three. This one just looked dangerous.

“But sit down,” Montano said with a wave of his hand, “make yourself comfortable.”

Hedrick relieved Bart of his cloak; Raynor Two put a cup of some steaming drink in his hand, passed him a tray of small hot fried things that tasted crisp and delicious. Bart relaxed, answering questions. *How old? Only seventeen? And you came all alone on a Lhari ship, working your way as Astrogator? I must*

say you've got guts, kid! It was dangerously like the fantasy he had invented. But Montano interrupted at last.

"All right, this isn't a party and we haven't all night. I don't suppose Bart has either. Enough time wasted. Since you walked into this, young Steele, I take it you know what our plans are, after this?"

Bart shook his head. "No. Raynor Three sent me to call off your plans, because of my father—"

"That sounds like Three," interrupted Raynor Two. "Entirely too squeamish!"

Montano said irritably, "We couldn't have done anything without a man on the *Swiftwing*, and you know it. We still can't. Bart, I suppose you know about Lharillis."

"Not by that name."

"Your next stop. The planetoid of the captive sun. That little hunk of bare rock out there is the first spot the Lhari visited in this galaxy—even before Mentor. It's an inferno of light from that little blue-white sun, so of course they love it—it's just like home to them. When they found that the inner planets of Antares were inhabited, they built their spaceport here, so they'd have a better chance at trade." Montano scowled fiercely.

"But they wanted that little worldlet. So we went all over it to be sure there were no rare minerals there, and finally leased it to them, a century at a time. They mine the place for some kind of powdered lubricant that's better than graphite—it's all done by robot machinery, no one's stationed there. Every time a Lhari ship comes through this system they stop there, even though there's nothing on Lharillis except a landing field and some concrete bunkers filled with robot mining machinery. They'll stop there on the way out of this system—and that's where you come in. We need you on board, to put the radiation counter out of commission."

He took a chart from a drawer, spread it out on a table top. "The simplest way would be to cut these two wires. When the Lhari land, we'll be there, waiting for them. On board the Lhari ship, there must be full records—coordinates of their home world, of where they go for their catalyst fuel—all that."

Bart whistled. "But won't the crew defend the ship? You can't fight

energon-ray guns!"

Montano's face was perfectly calm. "No. We won't even try." He handed Bart a small strip of pale-yellow plastic.

"Keep this out of sight of the Mentorians," he said. "The Lhari won't be able to see the color, of course. But when it turns orange, take cover."

"What is it?"

"Radiation-exposure film. It's exactly as sensitive to radiation as you are. When it starts to turn orange, it's picking up radiation. If you're aboard the ship, get into the drive chambers—they're lead-lined—and you'll be safe. If you're out on the surface, you'll be all right inside one of the concrete bunkers. But get under cover before it turns red, because by that time every Lhari of them will be stone-cold dead."

Bart let the strip of plastic drop, staring in disbelief at Montano's cold, cruel face. "Kill them? Kill a whole *shipload* of them? That's *murder*!"

"Not murder. War."

"We're not at war with the Lhari! We have a treaty with them!"

"The Federation has, because they don't dare do anything else," Montano said, his face taking on the fanatic's light, "but some of us dare do something, some of us aren't going to sit forever and let them strangle all humanity, hold us down, let us *die*! It's war, Bart, war for economic survival. Do you suppose the Lhari would hesitate to kill anyone if we did anything to hurt their monopoly of the stars? Or didn't they tell you about David Briscoe, how they hunted him down like an animal—"

"But how do we know that was Lhari policy, and not just—some fanatic?" Bart asked suddenly. He thought of the death of the elder Briscoe, and as always he shivered with the horror of it, but for the first time it came to him: *Briscoe had provoked his own death. He had physically attacked the Lhari—threatened them, goaded them to shoot him down in self-defense!* "I've been on shipboard with them for months. They're not wanton murderers."

Raynor Two made a derisive sound. "Sounds like it might be Three talking!"

Hedrick growled, "Why waste time talking? Listen, young Steele, you'll do as you're told, or else! Who gave you the right to argue?"

"Quiet, both of you." Montano came and laid his arm around Bart's

shoulders, persuasively. "Bart, I know how you feel. But can't you trust me? You're Rupert Steele's son, and you're here to carry on what your father left undone, aren't you? If you fail now, there may not be another chance for years—maybe not in our lifetimes."

Bart dropped his head in his hands. *Kill a whole shipload of Lhari—innocent traders? Bald, funny old Rugel, stern Vorongil, Ringg—*

"I don't know what to do!" It was a cry of despair. Bart looked helplessly around at the men.

Montano said, almost tenderly, "You couldn't side with the Lhari against men, could you? Could a son of Rupert Steele do that?"

Bart shut his eyes, and something seemed to snap within him. His father had died for this. He might not understand Montano's reasons, but he had to believe that Montano had them.

"All right," he said, thickly, "you can count on me."

When he left Montano's house, he had the details of the plan, had memorized the location of the device he was to sabotage, and accepted, from Montano, a pair of dark contact lenses. "The light's hellish out there," Montano warned. "I know you're half Mentorian, but they don't even take their Mentorians out there. They're proud of saying no human foot has ever touched Lharillis."

When he got back to the Lhari spaceport, Ringg hailed him. "Where have you been? I hunted the whole port for you! I wouldn't join the party till you came. What's a pal for?"

Bart brushed by him without speaking, disregarding Ringg's surprised stare, and went up the ramp. He reached his own cabin and threw himself down in his bunk, torn in two.

Ringg was his friend! Ringg liked him! And if he did what Montano wanted, Ringg would die.

Ringg had followed him, and was standing in the cabin door, watching him in surprise. "Bartol, is something the matter? Is there anything I can do? Have you had more bad news?"

Bart's torn nerves snapped. He raised his head and yelled at Ringg, "Yes, there is something! You can quit following me around and just let me alone for a change!"

Ringg took a step backward. Then he said, very softly, "Suit yourself, Bartol. Sorry." And noiselessly, his white crest held high, he glided away.

Bart's resolve hardened. Loneliness had done odd things to him—thinking of Ringg, a Lhari, one of the freaks who had killed his father, as a friend! If they knew who he was, they would turn on him, hunt him down as they'd hunted Briscoe, as they'd hunted his father, as they'd hounded him from Earth to Procyon. He put his scruples aside. He'd made up his mind.

They could all die. What did he care? He was human and he was going to be loyal to his own kind.

CHAPTER ELEVEN

But although he thought he had settled all the conflict, he found that it returned when he was lying in his bunk, or when he stood in the dome and watched the stars, while they moved through the Antares system toward the captive sun and the tiny planet Lharillis.

It's in my power to give this to all men....

Should a few Lhari stand in his way?

He lay in his bunk brooding, thinking of death, staring at the yellow radiation badge. *If you fail, it won't be in our lifetime.* He'd have to go back to little things, to the little ships that hauled piddling cargo between little planets, while all the grandeur of the stars belonged to the Lhari. And if he succeeded, Vega Interplanet could spread from star to star, a mighty memorial to Rupert Steele.

One day Vorongil sent for him. "Bartol," he said, and his voice was not unkind, "you and Ringg have always been good friends, so don't be angry about this. He's worried about you—says you spend all your spare time in your bunk growling at him. Is there anything the matter, feathertop?"

He sounded so concerned, so—the word struck Bart with hysterical humor—so *fatherly*, that Bart wanted insanely to laugh and to cry. Instead he muttered, "Ringg should mind his own business."

"But it's not like that," Vorongil said. "Look, the *Swiftwing*'s a world, young fellow, and a small one. If one being in that world is unhappy, it affects everyone."

Bart had an absurd, painful impulse—to blurt out the incredible truth to Vorongil, and try to get the old Lhari to understand what he was doing.

But fear held him silent. He was alone, one small human in a ship of Lhari. Vorongil was frowning at him, and Bart mumbled, "It's nothing, *rieko mori*."

"I suppose you're pining for home," Vorongil said kindly. "Well, it won't be long now."

The glare of the captive sun grew and grew in the ports, and Bart's dread mounted. He had, as yet, had no opportunity to put the radiation counter out of order. It was behind a panel in the drive room, and try as he might, he could think of no way to get to it unobserved. Sometimes, in sleepless nights, it

seemed that would be the best way. Just let it go. But then the Lhari would detect Montano's ship, and kill Montano and his men.

Did he believe that? He had to believe it. It was the only way he could possibly justify what he was doing.

And then his chance came, as so many chances do when one no longer wants them. The Second Officer met him at the beginning of one watch, saying worriedly, "Bartol, old Rugel's sick—not fit to be on his feet. Do you think you can hold down this shift alone, if I drop in and give you a hand from time to time?"

"I think so," Bart said, carefully not overemphasizing it. The Second Officer, by routine, spent half of his time in the drive room, and half his time down below in Maintenance. When he left, Bart knew he would have at least half an hour, uninterrupted, in the drive room. He ripped open the panel, located the wires and hesitated; he didn't quite dare to cut them outright.

He jerked one wire loose, frayed the other with a sharp claw until it was almost in shreds and would break with the first surge of current, pulled two more connections loose so that they were not making full contact. He closed the panel and brushed dust over it, and when the Second Officer came back, Bart was at his own station.

As Antares fell toward them in the viewport, he found himself worrying about Mentorians. They would be in cold sleep, presumably in a safe part of the ship, behind shielding, or Montano would have made provisions for them. Still, he wished there were a way to warn Meta.

He was not on watch when they came into the planetary field of Lharillis, but when he came on shift, he knew at once that the trouble had been located. The panel was pulled open, the exposed wires hanging, and Ringg was facing old Rugel, shouting, "Listen, Baldy, I won't have you accusing me of going light on my work! I checked those panels eight days ago! Tell me who's going to be opening the panels in here anyhow?"

"No, no," Rugel said patiently, "I'm not accusing you of anything, only being careless, young Ringg. You poke with those buzzing instruments and things, maybe once you tear loose some wires."

Bart remembered he wasn't supposed to know what was going on. "What's this all about?"

It was Rugel who answered. "The radiation counter—the planetary one, not the one we use in space—is out of order. We don't even need it this landing—there's no radiation on Lharillis. If it were the landing gear, now, that would be serious. I'm just trying to tell Ringg—"

"He's trying to say I didn't check it." Ringg was not to be calmed. "It's my professional competence—"

"Forget it," Bart said. "If Rugel isn't sore about it, and if we don't need it for landing, why worry?" He felt like Judas.

"Just take a look at my daybook," Ringg insisted, "I checked and marked it *service fit*! I tell you, somebody was blundering around, opening panels where they had no business, tore it out by accident, then was too much of a filthy sneak to report it and get it fixed!"

"Bartol was on watch alone one night," said the Second Officer, "but you wouldn't meddle with panels, would you, Bartol?"

Bart set his teeth, steadying his breathing, as Ringg turned hopefully to him. "Bartol, did you—by mistake, maybe? Because if you did, it won't count against your rating, but it means a black mark against mine!"

Bart hid his self-contempt in sudden, tense fury. "No, I didn't! You're going to accuse everybody on the *Swiftwing*, all the way from me to Vorongil, before *you* can admit a mistake, aren't you? If you want somebody to blame, look in a mirror!"

"Listen, you!" Ringg's pent-up rage exploded. He seized Bart by the shoulder and Bart moved to throw him off, so that Ringg's outthrust claws raked only his forearm. In pure reflex he felt his own claws flick out; they clinched, closed, scuffled, and he felt his claws rake flesh; half incredulous, saw the thin red line of blood welling from Ringg's cheek.

Then Rugel's arms were flung restrainingly around him, and the Second Officer was wrestling with a furious, struggling Ringg. Bart looked at his red-tipped claws in ill-concealed horror, but it was lost in a general gasp of consternation, for Vorongil had flung the drive room door open, taking in the scene in one blistering glance.

"What's going on down here?"

For the first time, Bart understood Vorongil's reputation as a tyrant. One glance at Ringg's bleeding face and Bart's ripped forearm, and he did not pause

for breath for a good fifteen minutes. By the time he finished, Bart felt he would rather Ringg's claws had laid him bleeding to the bone than stand there in the naked contempt of the old Lhari's freezing eyes.

"Half-fledged nestlings trying to do a man's work! So someone forgot the panel, or damaged the panel by mistake—no, not another word," he commanded, as Ringg's crest came proudly up. "I don't care who did what! Any more of this, and the one who does it can try his claws on the captain of the *Swiftwing*!" He looked ugly and dangerous. "I thought better of you both. Get below, you squalling kittens! Let me not see your faces again before we land!"

As they went along the corridor, Ringg turned to Bart, apology and chagrin in his eyes. "Look—I never meant to get the Bald One down on us," he said, but Bart kept his face resolutely averted. It was easier this way, without pretense of friendship.

The light from the small captive sun grew more intense. Bart had never known anything like it, and was glad to slip away and put the dark contact lenses into his eyes. They made his eyes appear all enormous, dilated pupil; fearfully, he hoped no one would notice. His arm smarted, and he did not speak to Ringg all through the long, slow deceleration.

When the intercom ordered all crew members to the hatchway, Bart lingered a minute, pinning the yellow radiation badge in a fold of his cloak. A spasm of fear threatened to overwhelm him again, and nightmarish loneliness. He felt agonizingly homesick for his own familiar face. It seemed almost more than he could manage, to step out into the corridor full of Lhari.

It won't be long now.

The hatch opened. Even accustomed, as he was, to Lhari lights, Bart squeezed his eyes shut at the blue-white brilliance that assaulted him now. Then, opening slitted lids cautiously, he found that he could see.

A weirdly desolate scene stretched away before them. Bare, burning sand, strewn with curiously colored rocks, lay piled in strange chaos; then he realized there was an odd, but perceptible geometry to their arrangement. They showed alternate crystal and opaque faces. Old Rugel noted his look of surprise.

"Never been here before? That's right, you've always worked on the Polaris run. Well, those aren't true rocks, but living creatures of a sort. The crystals are

alive; the opaque faces are lichens that have something like chlorophyll and can make their food from air and sunlight. The rocks and lichens live in symbiosis. They have intelligence of a sort, but fortunately they don't mind us, or our automatic mining machinery. Every time, though, we find some new lichen that's trying to set up a symbiote cycle with the concrete of our bunkers."

"And every time," Ringg said cheerfully, "somebody—usually me—has to see about having them scraped down and repainted. Maybe someday I'll find a paint the lichens don't like the taste of."

"Going to explore with Ringg?" Rugel asked, and Ringg, always ready to let bygones be bygones, grinned and said, "Sure!" Bart could not face him.

Vorongil stopped and said, "This your first time here, young Bartol? How would you like to visit the monument with me? You can see the machinery on the way back."

Relieved at not having to go with Ringg, he followed the captain, falling into step beside him. They moved in silence, along the smooth stone path.

"The crystal creatures made this road," Vorongil said at last. "I think they read minds a little. There used to be a very messy, rocky desert here, and we used to have to scrabble and scratch our way to the monument. Then one day a ship—not mine—touched down and discovered that there was a beautiful smooth road leading up to the monument. And the lichens never touch that stone—but you probably had all this in school. Excited, Bartol?"

"No—no, sir. Why?"

"Eyes look a bit odd. But who could blame you for being excited? I never come here without remembering Rhazon and his crew on that long jump. The longest any Lhari captain ever made. A blind leap in the dark, remember, Bartol. Through the dark, through the void, with his own crew cursing him for taking the chance! No one had ever crossed between galaxies—and remember, they were using the Ancient Math!"

He paused, and Bart said through a catch of breath. "Quite an achievement." His badge still looked reassuringly yellow.

"You young people have no sense of wonder," Vorongil said. "Not that I blame you. You can't realize what it was like in those days. Oh, we'd had star-travel for centuries, we were beginning to stagnate. And now look at us! Oh, they derided Rhazon—said that even if he did find anyone, any other race,

they'd be monsters with whom we could never communicate. But here we have a whole new galaxy for peaceful trade, a new mathematics that takes all the hazard out of space travel, our Mentorian friends and allies." He smiled. "Don't tell the High Council on me, but I think they deserve a lot more credit than most Lhari care to give them. Between ourselves, I think the next Panarch may see it that way."

Vorongil paused. "Here's the monument."

It lay between the crystal columns, tall, of pale blue sandstone, with letters in deep shadow of such contrast that the Lhari could read them: a high, sheer, imposing stele. Vorongil read the words slowly aloud in the musical Lhari language:

"'Here, with thanks to Those who Watch the Great Night, I, Rhazon of Nedrun, raise a stone of memory. Here we first do touch the new worlds. Let us never again fear to face the unknown, trusting that the Mind of All Knowledge still has many surprises in store for all the living.'

"I think I admire courage more than anything there is, Bartol. Who else could have dared it? Doesn't it make you proud to be a Lhari?"

Bart had felt profoundly moved; now he snapped back to awareness of who he was and what he was doing. So only the Lhari had courage? *Life has surprises, all right, Captain*, he thought grimly.

He glanced down at the badge strip of plastic on his arm. It began to tinge faint orange as he looked, and a chill of fear went over him. He had to get away somehow—get to cover!

He looked round and his fear was almost driven from his mind. "Captain, the rocks! They're moving!"

Vorongil said, unruffled, "Why, so they are. They do, you know; they have intelligence of a sort. Though I've never actually *seen* them move before, I know they shift places overnight. I wonder what's going on?" They were edging back, the path widening and changing. "Oh, well, maybe they're going to do some more landscaping for us. I once knew a captain who swore they could read his mind."

Bart saw the slow, inexorable deepening of his badge—he *had* to get away. He tensed, impatient; gripped by fists of panic. Somewhere on this world, Montano and his men were setting up their lethal radiations....

Think of this: a Lhari ship of our own to study, to know how it works, to see the catalyst and find out where it comes from, to read their records and star routes. Now we know we can use it without dying in the warp-drive....

Think of this: to be human again, yet to travel the stars with men of my own race!

It's worth a few deaths!

Even Vorongil? Standing here, talking to him, he might—*say it! You talked to him as if he'd been your father! Oh, Dad, Dad, what would you do?*

His voice was steady, as he said, "It's very good of you to show me all this, sir, but the other men will call me a slacker. Hadn't I better get to a work detail?"

"Hm, maybe so, feathertop," Vorongil said. "Let me see—well, down this way is the last row of bunkers. See the humps? You can check inside to see if they're full or empty and save us the trouble of exploring if they're all empty. Have a look round inside if you care to—the robot machinery's interesting."

Bart tensed; he had wondered how he'd get hidden inside, but he asked, "Not locked?"

"Locked?" The old Lhari's short, yellowed crest bobbed in surprise. "Why? Who ever comes here but our ships? And what could we do with the stuff but take it back with us? Why locked? You've been on the drift too long—among those thieving humans! It's time you got back to live among decent folk again. Well, go along."

The sting of the words stiffened Bart as he took his leave. The color of the badge seemed deeper orange....

When it's red, you're dead.

It's true. The Lhari don't steal. They don't even seem to understand dishonesty.

But they lied—lied to us all....

Knowing what we were like, maybe! That we'd steal their ships, their secrets, their lives!

The deepening color of the badge seemed the one visible thing in a strange glaring world. He walked along the row of bunkers, realizing he need not check if they were full or empty—the Lhari wouldn't live long enough to harvest their better-than-graphite lubricant. They'd be dead.

The last bunker was empty. He looked at his orange badge and stepped inside, heart pounding so loudly he thought it was an external sound—it *was* an external sound, a step.

"Don't move one inch," said a voice in Universal, and Bart froze, trembling. He looked cautiously round.

Montano stood there, spacesuited, his head bare, dark contact lenses blurring his eyes. And in his hand a drawn blaster was held level—trained straight at Bart's heart.

CHAPTER TWELVE

After the first moment of panic, Bart realized Montano could not tell him from a Lhari. He remained motionless. "It's me, Montano—Bart Steele."

The man lowered the weapon and put it away. "You nearly got yourself cut down," he said. "Did you make it all right?" He crossed behind Bart, inspecting the fastenings of the bunker.

"It's just luck I didn't shoot you first and ask questions afterward." Montano drew a deep breath and sat down on the concrete floor. "Anyway, we're safe in here. We've got about half an hour before the radiation will reach lethal intensity. It has a very short half-life, though; only about twelve minutes. If we spend an hour in here, we'll be safe enough. Did you have any trouble putting the radiation counter out of commission?"

So in half an hour they would all be dead. Ringg, Rugel, Captain Vorongil. Two dozen Lhari, all dead so that Montano could have a Lhari ship to play with.

And what then? More killing, more murder? Would Montano start killing everyone who tried to get the secret of the drive from him? The Lhari had the star-drive; maybe it belonged to them, maybe not. Maybe humans had a right to have it, too. But this wasn't the right way. Maybe they didn't deserve it.

He turned to look at Montano. The man was leaning back, whistling softly through his teeth. He felt like telling Montano that he couldn't go through with it. He started to speak, then stopped, his blood icing over.

If I try to argue with him, I'll never get out of here alive. It means too much to him.

Do I just salve my conscience with that then? Sit here and let them die?

With a shock of remembrance, it came to Bart that he had a weapon. He was armed, this time, with the energon-beam that was part of his uniform. Montano had evidently forgotten it. *Could* he kill Montano? Even to save two dozen Lhari?

He reached hesitantly toward the beam-gun, quickly thumbed the catch down to the lowest point, which was simple shock. He froze as Montano looked in his direction, hand out of sight under his cloak.

"How many Lhari on board?"

"Twenty-three, and three Mentorians."

"Anyone apt to be behind shielding—say, in the drive chamber?"

"No, I think they're all outside."

Montano nodded, idly. "Then we won't have to worry."

Bart slipped his hand toward his weapon. Montano saw the movement, cocked his head in question; then, as understanding flashed over his face, his hand darted to his own gun. But Bart had pressed the charge of his, and Montano slumped over without a cry. He looked so limp that Bart gasped. Was he dead? Hastily he fumbled the lax hand for a pulse. After a long, endless moment he saw Montano's chest twitch and knew the man was breathing.

Well, Montano would be safe here in the bunker. Hastily, Bart looked at his timepiece. Half an hour before the radiation was lethal—*for the Lhari*. Was it already, for him? Shakily, he unfastened the door. He ran out into the glare, seeing as he ran that his badge was tinged with an ever-darkening, gold, orange....

Montano had said there was a safety margin, but maybe he was wrong, maybe all Bart would accomplish would be his own death! He ran back along the line of bunkers, his heart pounding with his racing feet. Two crewmen came along the line, young white-crested Lhari from the other watch. He gasped, "Where is the captain?"

"Down that way—what's wrong, Bartol?" But Bart was gone, his muscles aching with the unaccustomed effort inside gravity. Putting on speed, he saw the tall, austere shape of Vorongil, his banded cloak dark against the glaring light. Vorongil turned, startled, at the sound of his running feet.

Suddenly, Bart realized that he was still holding his energon-ray. In shock and revulsion, he dropped it at Vorongil's feet.

"Captain, go warn the men! They'll all be dead in half an hour! There are lethal radiations—"

"*What?* Are you sunstruck?"

Bart stopped cold. Never once had it crossed his mind what he would say to Vorongil or how he would make the captain believe his story, without revealing Montano. He started to hold up his badge, realized the Lhari captain could not see color, and dropped it again, while Vorongil bent over to pick up the fallen gun. "Are you sunstruck or mad, Bartol? What's this babble?"

"Captain, everybody on the *Swiftwing*—"

"And speak Lhari!" Vorongil demanded, and Bart realized that in his excitement he had been shouting in Universal. He drew a long, deep breath.

"Captain, there are lethal radiations being released here," he said. "You have just barely half an hour to gather all the men and get them behind shielding."

"The radiation counter is out of order," Vorongil remarked, unruffled. "How can you possibly know—"

Bart stood in despair. Could he say, *A ship has landed here?* Could he say, *Check that bunker?* Even if Montano was a would-be murderer, he was human, and Bart could not betray him to the Lhari. There had been too much betrayal. His voice rose in sudden hysteria.

"Captain, there's no time! I tell you, you'll all be dead if you don't believe me! Get the men into the ship! Get them behind shielding and *then* check my story! I'm not—" he had gone this far, he might as well go the whole way—"*I'm not a Lhari!*"

"What?"

One of the crewmen came dashing up, his crest sweat-streaked. "Captain! Rugel has collapsed! We don't know what's wrong with him."

"Radiation sickness," said Bart, and Vorongil reached out, catching his shoulder in a cruel taloned grip. Bart said desperately "I'm not a Lhari! I signed on in disguise—I knew they meant to take the ship, but I can't let you all die.

"How can I make you believe me? Here—" In desperation, Bart reached up. Pain stabbed his eyeballs, fierce, blinding, as he pulled out one of the contact lenses. He could not see the captain's face through the light, but suddenly two Lhari were holding his arms. The fear of death was on Bart, but it no longer mattered. He saw through watering eyes the ever-deepening orange of the badge disappearing.

"Here," he said, tearing at it, "radiation. You must be able to see how dark it is. Even if it's just darkness...."

Suddenly Vorongil was shouting, but Bart could not hear. Two men were dragging him along. They hustled him up the ramp of the ship. He could see again, but his eyes were blurred, and he felt sick, colors spinning before his eyes, a nauseated ringing in his head.

At first he thought it was his ears ringing; then he made out the rising,

shrieking wail and fall of the emergency siren, steps running, shouting voices, the slow clang of the doors. Someone was pushing at him, babbling words in Lhari, but he heard them through an ever-increasing distance: Vorongil's face bent over his, only a blurred crimson blob that flashed away like a vanishing star in the viewport. It flamed out into green darkness, vanished, and Bart fell through what seemed to be a bottomless chasm of starless night.

When he woke, acceleration had its crushing hand on his chest. He tried to move, discovered that he was strapped hard into a bunk, and fainted again.

Suddenly the pressure was gone and he was lying at ease on the smooth sheets of a hospital bunk. His eyes were covered with a light bandage, and there was a sharp pain in his left arm. He tried to move it and found it was tied down.

"I think he's coming round," said Vorongil's voice.

"Yes, and a lot too soon for me," said a bitter voice which Bart recognized as that of the ship's medic. "Freak!"

"Listen, Baldy," said Vorongil, "whoever he is, he could have been blinded or killed. You wouldn't be alive now if it wasn't for that *freak*, as you call him. Bartol, can you hear me? How much light can your eyes stand?"

"As much as any Mentorian." Bart found he could move his right arm, and twitched the bandage away. Vorongil and the medic stood over him; in the other infirmary bunk a form was lying, covered with a white sheet. Sickly, Bart wondered if they had found Montano. Vorongil followed the direction of his eyes.

"Yes," he said, and his voice held deep bitterness, "poor old Rugel is dead. He didn't get much of the radiation, but his heart wouldn't stand it, and gave out." He bowed his head. "He was bald in the service of the ships when my crest was new-sprouted," he said in deep grief.

Bart felt the shock of that, even through his own fear. He looked down at his left arm. It was strapped to a splint, and fluid was dripping slowly into the vein there.

Vorongil nodded. "I expect you feel pretty sick. You got a good dose of radiation yourself, but we've given you a couple of transfusions—one of the Mentorians matched your blood type, fortunately. It was a close call."

The medic was looking down in ill-disguised curiosity. "Fantastic," he said.

"I don't suppose you'd tell me who changed your looks. I admit I wouldn't believe it until I had a look at your foot bones under the fluoroscope."

Vorongil said quietly, "Bartol—I don't suppose that's your real name—why did you do it?"

"I couldn't see you all die, sir," Bart said, not expecting them to believe him. "No more than that."

The medic said roughly in Lhari, "It's a trick, sir, no more. A trick to make us trust him!"

"Why would he risk his own life then?" Vorongil asked. "No, it's more than that." He hesitated. "We checked the bunkers—in radiation suits—before we took off. We found a man in one of them."

"Was he dead?" Bart whispered.

"No," Vorongil said quietly.

"Thank God!" It was a heartfelt explosion. Then, apprehensively, "Or did you kill him?"

"What do you think we are?" Vorongil said incredulously. "Indeed no. His own men have probably found him by now. I don't imagine he got half as much radiation as you did."

Bart surveyed the needle in his arm. "Why are you taking all this trouble if I'm going to be put out of the way?"

"You must have some funny ideas about us," Vorongil said shaking his head. "That would be a fine way to reward you for saving all of our lives. No, you're not going to be killed."

"If I had my way—" the old medic began, and suddenly Vorongil flew into a rage. "Get out!"

The medic went stiffly through the door, and Vorongil stood gazing down at Bart, shaking his yellowed crest. "I don't know what to say to you. It was a brave thing you did, but perhaps no braver than you've done all along. Are you a Mentorian?"

"Only half."

"Strange," Vorongil said, looking into space, "that I could talk to you as I did by the monument, and you knew what I meant. But, yes, you would understand." Abruptly, he recalled himself, and his voice was thin and cold.

"I haven't quite decided what to do. I haven't spoken of this to the crew yet;

the fewer who know about this, the better. I told them you got a heavy dose of radiation, and you're too sick to see visitors." He sounded kinder when he said, "It's true, you know. It won't hurt you to get your strength back."

He went out, and Bart wondered, *Get my strength back for what?* He lay back, feeling weaker than he realized. It was a relief to know he wasn't going to be killed out of hand. And somehow he didn't believe he was going to be killed at all.

It wasn't like being a prisoner. The medic brought him plenty of food, urging him to eat—"You need plenty of protein after radiation burns"—and if he stayed in the bunk, it was only because he felt too weak to get up. Actually he was suffering from delayed emotional shock, as well as from radiation. He was content to let things drift.

Inevitably, the time came when he had to think about what he had done. He had betrayed Montano, he had been false to the men who sent him.

"But they don't know the Lhari," his conscience replied, justifying what he had done.

You sided with the Lhari against your own people. You spoilt our chances of learning about the Lhari fuel catalyst.

"I've done something better than stealing a secret by stealth. I've proved that humans and Lhari can communicate, that they can trust each other. It's only their looks that are strange. A kind, generous man is a kind generous man, whether his name is Raynor Three or Vorongil."

But who's going to know it?

"I know it. And truth comes out, sooner or later. Somehow, a better understanding between man and Lhari will come from this."

Secure in the knowledge, he turned over and went peacefully to sleep.

When he woke again, he felt better. The Mentorian girl, Meta, was sitting quietly between the bunks, watching him. He started to turn over, flinched at the pain in his arm.

"Yes," she said, "we're giving you one last transfusion. Plasma, this time. It's Lhari, but if you know that much, you know it won't hurt you." She came and inspected the needle in his wrist, and Bart caught her hand with his free one. "Meta, does anyone else know?"

She looked down with a troubled smile. "I don't think so. I was off watch,

waiting for cold-sleep—we're just about to make the long jump—when Vorongil came to my quarters. I was startled almost out of my wits. He asked if I could keep a secret; then he told me about you. Oh, Bart!" Her small soft hand closed convulsively on his, "I was so afraid! I knew they wouldn't kill you, but I was afraid!"

Yet they had killed David Briscoe, Bart thought, and hunted down two of his friends. It was the only thing he couldn't square with his perception of the Lhari. It didn't fit. He could understand that they had shot down the robotcab with Edmund Briscoe in it, in pure self-defense; and that knowledge had taken off the edge of the horror. But the death of young Briscoe and everyone he had talked to could not be explained away.

"You seem very sure they wouldn't have killed me, Meta," he said, carefully clasping his hand around hers.

"They wouldn't," she affirmed. "But they could—make you forget—"

A small chill went over Bart. He let go of her hand and lay staring bleakly at the wall. He supposed that was his probable fate: remembering the tragic tone of Raynor Three when he said *I won't remember you*, he gritted his teeth, feeling his face twist convulsively. Meta, watching, misunderstood.

"Arm hurting? I'll have that needle out of your vein in a few minutes now."

When she had freed his arm and put away the apparatus, she came to his side. "Bart, how did it happen? How did they find you out?"

Suddenly, the longing for human contact was too much for Bart, and the knowledge of his secret intolerable. The Lhari could find out what he knew, if they wanted to know, very simply; he was in their power. It didn't matter any more.

The telling of the story took a long time, and when he finished, Meta's soft small kitten-face was compassionate.

"I'm glad you—decided what you did," she whispered. "It's what a Mentorian would have done. I know that other races call us *slaves of the Lhari*. We aren't. We're working in our own way to show the Lhari that human beings can be trusted. The other peoples—they hold away from the Lhari, fighting them with words even though they're afraid to fight them with weapons, carrying on the war that they're afraid to fight!

"Did it ever occur to you—all the peoples of all the planets keep saying,

We're as good as the Lhari, but only the Mentorians are willing to prove it? Bart, a Lhari ship can't get along in our galaxy without Mentorians any more! It may be slower than trying to take the warp-drive by force, or stealing it by spying, but when we learn to endure it, I have faith that we'll get it!"

Bart, although moved by Meta's philosophy, couldn't quite share it. It still seemed to him that the Mentorians were lacking in something—independence, maybe, or drive.

"I wasn't thinking about anything like that," he said honestly. "It was simply that I couldn't let them die. After all—" he was speaking more to himself than to the girl—"it's *their* star-drive. *They* found it. And they've given us star-trade, and star-travel, cheaply and with profit to both sides. I hope we'll get the star-drive someday. But if we got it by mass murder, it would sow the seeds of a hatred between men and Lhari that would never end. It wouldn't be worth it, Meta. Nothing would be worth that. We've got enough hate already."

Bart was still in his bunk, but beginning to fret at staying there, when the familiar trembling of Acceleration Two started to run through the ship. It was, by now, so familiar to him that he hardly gave it a second thought, but Meta panicked.

"What's happening? Bart, what is it? Why are we under acceleration again?"

"Shift to warp," he said without thinking, and her face went deathly white. "So that's it," she whispered. "Vorongil—no wonder he wasn't worried about what I would find out from you or what you knew." She drew herself together in her chair, a miserable, shrunken, terrified little figure, bravely trying to control her terror.

Then she held out her hands to Bart. "I'm—I'm ashamed," she whispered. "When you've been so brave, I shouldn't be afraid to die."

"Meta, what's the matter? What are you afraid of?" It suddenly swept over Bart what she meant and what she feared. "But don't you understand, Meta?" he exclaimed, "Humans *can* live through the warp-drive! No drugs, no cold-sleep —Meta, I've done it dozens of times!"

"But you're a Lhari!" It burst from her, uncontrollable. She stopped, looked at him in consternation. He smiled, bitterly.

"No, Meta, they didn't do a thing to my internal organs, to my brain, to the tissues of my body. Just a little plastic surgery on my hands, my feet and my face. Meta, there's nothing to be afraid of—nothing," he repeated.

She twisted her small hands together. "I'm—trying to—to believe that," she whispered, "but all my life I've known—"

The screaming whine in the ship gripped them with the strange, clawing lassitude and discomfort. Bart, gasping under it, heard the girl moan, saw her slump lax in her chair, half fainting. Her face was so deathly white that he began seriously to be afraid she would die of her fear. Fighting his own agonizing weakness, he pulled himself upright. He reached the girl, dug his claws cruelly into her.

"Girl, get hold of yourself! Fight it! *Fight* it! The more scared you are, the worse it's going to be!"

She was rigid, trembling, in a trance of terror.

"You rotten little coward," he yelled at her, "snap out of it! Or are all you Mentorians so gutless that you believe any half-baked folk tale the Lhari pass off on you? You and your fine talk about earning the star-drive! What would you do with it after you got it—if you die of fear when you try?"

"Oh! You—!" She flung her head back, her eyes blazing with rage. "Anything you can do, I can do, too!" He saw life flowing back into her face, and the trembling now was with fury, not fear; she was fighting the pain, the crawling itch in her nerve ends, the terrible sense of draining disorganization.

Bart felt his hold on himself breaking. He whispered hoarsely, "That's the girl—don't be scared if I—black out for a minute." He held on to consciousness with his last courage, afraid if he fainted, the girl would collapse again.

She reached for him, and Bart, starved for some human touch, drew her into his arms. They clung together, and he felt her wet face against his own, the softness of her trembling hands. She was still crying a little. Then the blackness closed on him, as if endless, and the gray blur of warp-drive peak blotted his brain into nothingness.

He came out of it to feel her cheek soft against his, her head trustfully on his shoulder. He said huskily, "All right, Meta?"

"I'm fine," she murmured, shakily. He tightened his hands a little, realizing that for the first time in months he had physically forgotten his Lhari disguise,

that Meta had given him this priceless reassurance that he was human. But, as if suddenly aware of it again, she looked up at him and drew hesitantly away.

"Don't—Meta, am I so horrible to you then? So—repulsive?"

"No, it's only—" she bit her lip—"it's just that the Lhari are—I can't quite explain it."

"Different," Bart finished for her. "At first I was repelled—physically repelled by myself, and by them. It was like living among weird animals, and being one of the animals. And then, one day, Ringg was just another kid. He had gray skin and long claws and white hair, just the way I once had pinkish skin and short fingernails and reddish hair, but the difference wasn't that I was human inside and he wasn't. If you skinned Ringg, and skinned me, we'd be almost identical. And all of a sudden then, Ringg and Vorongil and all the rest were men to me. Just people. I thought you Mentorians, after living with the Lhari all these years, would feel that."

She said in slow wonder, "We've lived and worked side by side with them all these years, yet kept so apart! I've defended the Lhari to you, yet it took you to explain them to me!"

His arm was still round her, her head still lying on his shoulder. Bart was just beginning to wonder if he might kiss her when the infirmary door opened and Ringg stood in the doorway, staring at them with surprise, shock and revulsion. Bart realized, suddenly, how it must look to Ringg—who certainly shared Meta's prejudice—but even as he comprehended it, Ringg's face altered. Meta slipped from Bart's arms and rose, but Ringg came slowly a step into the room.

"I—remembered you had a bad reaction, to warp-drive," he said. "I came to see if you were all right. I would never have believed—but I'm beginning to guess. There was always something about you, Bartol." He shut the door behind him and stood against it. His voice lowered almost to a whisper, he said, "You're not Lhari, are you?"

"Vorongil knows," Bart said.

Ringg nodded. "That day on Lharillis. The crew was talking, but only one or two of them really *know* what happened. There are a dozen rumors. I wanted to see you. They said you were sick with radiation burns—"

"I was."

Ringg raised his hand, absently, to the still-puckered mark on his cheek, saw Bart watching him and smiled.

"You're not worrying about that fight? Forget it, friend. If anything, I admire someone who can use his claws—especially if, as I begin to suspect, they're not his." He leaned over, his hand lightly on Bart's shoulder. "I don't forget so easily. You saved my life, remember? And you're a hero on the ship for warning us all. Are you really human? Why not get rid of the disguise?"

Bart laughed wryly. "It won't come off," he said, and explained.

Ringg raised his hands to his own face curiously. "I wonder what sort of human I'd make?" He looked at Meta's small fingers. "Not that I'd ever have the nerve. But then, it's no surprise to anyone that you have courage, Bartol."

"You seem to accept it—"

"It's a shock," said Ringg honestly, "it scares me a little. But I'm remembering the friendship. That was real. As far as I'm concerned, it still is real."

CHAPTER THIRTEEN

Ringg was still bending over Meta's hand when Vorongil came into the cabin. He started to speak, then noticed Ringg. "I might have known," he growled, "if there was anything to find out, you'd find it."

"Shall I go, *rieko mori*?"

"No, stay. You'll find it out some way or other, you might as well get it right the first time. But first of all—are you all right, Meta?"

Her chin went up, defiantly. "Yes. And why have you lied to us all these years—all of you?"

Vorongil looked mildly startled. "It wasn't exactly a lie. Nine out of ten Lhari captains believe it with all their heart—that humans die in warp-drive. I wasn't sure myself until I heard the debates in Council City, last year."

"But why?"

Vorongil sighed. His eyes rested disconcertingly on Bart. "I presume you know human history," he said, "better than I do. The Lhari have never had a war, in all written history. Quite frankly, you terrified us. It was decided, on the highest summit levels, that we wouldn't give humans too many chances to find out things we preferred to keep to ourselves. The first few ships to carry Mentorians had carried them without cold-sleep, but people forget easily. The truth is buried in the records of those early voyages.

"As the Mentorians grew more important to us, we began to regret the policy, but by that time the Mentorians themselves believed it so firmly that when we tried the experiment of carrying them through the shift into warp-drive, they died of fear—pure suggestion. I tried it with you, Meta, because I knew Bart's presence would reassure you. The others were given an inert sedative they believed to be the cold-sleep drug. How are you feeling, Bart?"

"Fine—but wondering what's going to happen."

"You won't be hurt," Vorongil said, quickly. Then: "You don't believe me, do you?"

"I don't, sir. David Briscoe did what I did, and he's dead. So are three other men."

"Men do strange things from fear—men and Lhari. Your people, as I said before, have a strange history. It scares us. Can you guarantee that some, at

least, of your people wouldn't try to come and take the star-drive by force? We left a man on Lharillis who thought nothing of killing twenty-four of us. I suppose the captain of the *Multiphase*, knowing he had gravely violated Lhari laws, knowing that Briscoe's report might touch off an intergalactic war between men and Lhari—well, I suppose he felt that half a dozen deaths were better than half a million. I'm not defending him. Just explaining, maybe, why he did what he did."

Bart lowered his eyes. He had no answer to that.

"No, you won't be killed. But that's all I can guarantee. My personal feelings have nothing to do with it. You'll have to go to Council Planet with us, and you'll have to be psych-checked there. That is Lhari law—and by treaty with your Federation, it is human law, too. If you know anything dangerous to us, we have a legal right to eliminate those memories before you can be released."

Meta smiled at him, encouragingly, but Bart shivered. That was almost worse than the thought of death.

And the fear grew more oppressive as the ship forged onward toward the home world of the Lhari. And it did not lessen when, after they touched down, he was taken from the ship under guard.

He had only a glimpse, through dark glasses, of the terrible brilliance of the Lhari sun dazzling on crystal towers, before he was hustled into a closed surface car. It whisked him away to a building he did not see from the outside; he was taken up by private elevator to a suite of rooms which might—for all he could tell—have been a suite in a luxury hotel or a lunatic asylum. The walls were translucent, the furniture oddly colored, and so carefully padded that even a homicidal or suicidal person could not have hurt himself or anyone else on it or with it.

Food reached him often enough so that he never got hungry, but not often enough to keep him from being bored between meals, or from brooding. Two enormous Lhari came in to look at him every hour or so, but either they were deaf and dumb, did not understand his dialect of Lhari, or were under orders not to speak to him. It was the most frustrating time of his entire voyage.

One day it ended. A Lhari and a Mentorian came for him and took him down elevators and up stairs, and into a quiet, neutral room where four Lhari

were gathered. They sat him in a comfortable chair, and the Mentorian interpreter said gently, with apology:

"Bart Steele, I have been asked to say to you that you will not be physically harmed in any way. This will be much simpler, and will have much less injurious effect on your mind if you cooperate with us. At the same time, I have been asked to remind you that resistance is absolutely useless, and if you attempt it, you will only be treated with force rather than with courtesy."

Bart sat facing them, shaking with humiliation. The thought of resistance flashed through his mind. Maybe he should make them fight for what they got! At least they'd see that all humans weren't like the Mentorians, to sit quietly and let themselves be brainwashed without a word of protest.

He started to spring up, and the hands of his guards tightened, swift and strong, even before his muscles had fully tightened. Bart's head dropped. Cold common sense doused over his brave thoughts. He was uncountable millions of light-years from his own people. He was absolutely alone. Bravery would mean nothing; submission would mean nothing. Would he be more of a man, somehow, if he let his mind be wrecked?

"All right," he muttered, "I won't fight."

"You show your good sense," the Mentorian said quietly. "Give me your left arm, please—or, if you are left-handed, your right. As you prefer."

Deftly, almost painlessly, a needle slid into his arm. *Giving in.* A dizzying welter of thoughts spun suddenly in his mind. Briscoe. Raynor One and Raynor Three. The net between the stars. Ringg, Vorongil, Meta, his father....

Consciousness slid away.

Years later—he never knew whether it was memory or imagination—it seemed to him that he could reach into that patch of gray and dreamless time and fish out questions and answers whole, the faces of Lhari swelling up suddenly in his eyes and shrinking back into interstellar distance, the sting-smell of drugs, the sound of unexpected voices, odd reflex pains, cobwebs of patchy memories that fitted nowhere else into his life so that he supposed they must go here.

He only knew that there was a time he did not remember and then a time when he began to think there was such a thing as memory, and then a time when he floated without a body, and then another time when the path of every

separate nerve in his body seemed to be outlined, a shimmering web in the gray murk. There was a mirror and a face. There were blotchy worms of light like the star-trails of peaking warp-drive through the viewport, colors shifting and receding, a green star, the red eye of Antares.

Then the peak-point faded, his mind began to decelerate and angle slowly down and down into the field of awareness, and he became fuzzily aware that he was lying full length on a sort of couch. He shook his head groggily. It hurt. He sat up. That hurt, too. A hand closed gently around his elbow and he felt the cold edge of a cup against his sore mouth.

"Take a sip of this."

The liquid felt cool on his tongue, evaporating almost before he could swallow; the fumes seemed to mount inside the root of his nose, expanding tremendously inside his head and brain. Abruptly his head was clear, the last traces of gray fuzz gone.

"When you feel able," the Mentorian said courteously, "the High Council will see you."

Bart blinked. As if exploring a sore tooth with his tongue, his mind sought for memories, but they all seemed clear, marshaled in line. The details, clear and unblurred, of his voyage here. His humiliation and resentment against the Lhari. *They could have changed my thinking, my attitudes. They could have made me admire or be loyal to the Lhari. They didn't. I'm still me.*

"I'm ready now." He got up, reeled and had to lean on the Mentorian; his feet did not seem to touch the ground in quite the right way. After a minute he could walk steadily, and followed the Mentorian along a corridor. The Mentorian said into a small grille, "The Vegan Bartol, alias Bart Steele," and after a moment a doorway opened.

Inside a room rose, high, domed, vaulted above his head, whitish opalescent, washed with green. For a moment, while his eyes adjusted to the light, he wondered how the Lhari saw it.

Beyond an expanse of black, glassy floor, he saw a low semicircular table, behind which sat eight Lhari. All wore pale robes with high collars that rose stiffly behind their domed heads; all were old, their faces lined with many wrinkles, and seven of the eight were as bald as the hull of the *Swiftwing*. Under their eyes he hesitated; then, unexpectedly, pride stiffened his back.

They should have done a better job of brainwashing, if they expected him to skulk in like a scared rabbit! He held his head high and moved across the floor step by steady step, trying not to limp or display that he felt tired or sore.

You're human! Act proud of it!

No one moved until he stood before the semicircle of ancients. Then the youngest, the only one of the eight with some trace of feathery crest on his high gray head, said "Captain Vorongil, you identify this person?"

"I do," Vorongil said, and Bart saw him seated before the high Council. To Bart, the Lhari captain seemed a familiar, almost a friendly face.

"Well, Bart Steele, alias Bartol son of Berihun," said one old Lhari, "what have you to say for yourself?"

Bart stood silent, not moving. What could he say that would not reveal how desperately alone, how young and foolish and frightened he felt? All his brave resolutions seemed to drain away before their old, gnomish faces. Here he'd been thinking of himself as a brave spy, a gallant fighter in humanity's cause and what not. Now he saw himself for what he was; a reckless boy, meddling in affairs too big for him. He lowered his eyes.

"We have read the transcript of your knowledge," said the old Lhari. "There is little in it that we do not know. We are not, of course, concerned with human conspiracies unless they endanger Lhari lives. The Antares authorities will deal with the man Montano for an unauthorized landing on Lharillis, in violation of Federation treaty."

He smiled, his gnome's face breaking into a million tiny cracks like a piece of gray-glazed pottery. "Bartol, or whatever you call yourself, you are a brave young man. I suppose you are afraid we will block your memories, or your ability to speak of them?"

Bart nodded, gulping. Did the old Lhari read his mind?

"A year ago we might have done so. Captain Vorongil, you will be interested to know that we have discussed this in Council, and your recommendations have been taken. The secret that humans can endure star-drive has outlived its usefulness. For good or ill, it is secret no longer. We cannot possibly eliminate all the old records, or the enterprising people who hunt them out.

"The captain who had David Briscoe killed, under the mistaken notion that

this would excuse his own negligence in letting Briscoe stow away on his ship, is undergoing psychotherapy and may eventually recover.

"As for the rest—Bart Steele, you know nothing that is a danger to us. You do not know the coordinates of our world, or even in which galaxy it is located. You do not know where we secure the catalyst your people seek. In fact, you know nothing that is not soon to become common knowledge. In view of that, we have decided not to interfere with your memories."

"Talk as much as you like," added another of the ancients, "and may your memories of this voyage help in understanding between the Lhari and other human races. Good fortune to you." And he was smiling.

"There is another side to this," said a third, more sternly and gravely. "You have broken a treaty between Lhari and man. We have dealt with you as the laws required; now your own people must do so. You must return with the *Swiftwing* to the planet where the violation originated—" he consulted a memorandum—"Procyon Alpha. There you and the man Raynor Three will face charges of unlawful conspiracy to board a Lhari ship, in violation of Intergalactic Trade treaties. Captain Vorongil, will you be responsible for him?"

So I've lost, Bart thought drearily. *I didn't even learn anything important enough for them to suppress.* There was a strange wounded pride in this; after all his trouble, he was being treated like a little boy who has used a great deal of enterprise and intelligence to rob a cookie cupboard, and for his pains is sent home with the stolen cookie in his hand.

Vorongil touched his arm. "Come, Bartol," he said gently, "I'm taking you back to the *Swiftwing*. I don't have to treat you like a prisoner, do I?"

Numbly, Bart gave what the old Lhari asked, his word of honor not to attempt escape (*Escape? Where to?*) or to attempt to enter the drive chamber of the *Swiftwing* while they were still among the Lhari worlds.

As they left the council hall, Bart, in a gesture of despair, covered his face with his hands. As he brought them down, he found himself staring at them, transfixed.

The fingers looked longer and thinner than he remembered them, but they were his own hands again. The nails seemed faintly thick and ridged, and there was still a faint grayish tinge through the pale flesh color, but they were human hands. Unmistakably. He felt of his nose and ears, with fumbling fingers; raised

his hand and touched the very short, crisp hair growing on his newly shaven skull.

"You fool," said Vorongil to the Mentorian, in disgust, "why didn't you tell him what the medics had done for him? Easy, Bartol!" The old Lhari's arm tightened around his shoulder. "I thought they'd told you. Somebody come here and give the youngster a hand."

Later, in the small cabin (it had been Rugel's) which was to be his prison during the return voyage of the *Swiftwing*, he had a chance to study his familiar-strange face. He had thought that only a short time—an hour or so—had elapsed between the time he was drugged and the time they took him before the Council. Later, from what he learned about the dispatch schedules of the *Swiftwing*, he realized that he had been kept under sedation for nearly three weeks, while his face and hands healed.

As Raynor Three had warned, the change was not altogether reversible. Studying his face in the mirror, he could still see a hint of something thin, strange, alien in the set of his features; the nose and chin somewhat too pointed, elfin, to be human. His hands would always be too long, too narrow, too supple. For the rest, he looked grim, older. He could never go back to what he had been before he became a Lhari; it had left its mark on him forever.

Before the *Swiftwing* lifted, outbound, Vorongil came to his cabin. "You've seen very little of our world," he said diffidently. "I have permission for you to visit the city before we leave Council Spaceport."

"You think you can trust me?" Bart asked bitterly.

Vorongil said gravely, without humor, "The question does not arise. You do not know the coordinates of this world, and have no way of finding them. Within those limitations, you are an honored guest here, and if it would give you any pleasure, you are welcome to see as much of Council Planet as time permits."

It seemed, through Vorongil's kindness, that the old Lhari sensed his bitter defeat. Nothing was to be gained by sulking in his cabin, a prisoner. He had an opportunity which no human, except the Mentorians, had ever had; which perhaps no human would ever have again. He might as well take advantage of it.

Ringg and Meta both seemed startled at his new appearance, but Meta instantly held out her hands, clasping his quickly and warmly. "Bart! I wondered what your real face looked like. But I think I'd have known you

anyhow."

Ringg surveyed him wonderingly, shaking his head. "Say something," he implored, "so I'll know you're Bartol."

Bart held out his arm, less gray by the day as the drug wore out of his system. The thin line of the scar was still on it. He raised his forefinger lightly to the fine line on Ringg's cheek. "I couldn't return that now. So let's not get into any more fights."

Ringg laughed and gave him a rough, affectionate shove. "You're Bartol, all right!"

Even his sense of defeat vanished in wonder as they came out into the great spaceport. He saw, now, that the Lhari spaceports in human worlds were built to create, for the spacemen so far from their native worlds, some feeling of home. But everything here was so vast as to stagger the imagination. There were miles and miles of the great ships, lying strewn like pebbles on this monster beachhead into space, bearing the strangeness of a million far-flung stars. He gaped like a child.

Above them, the burning brilliance of a star gave strange glow and color to the crystal pylons. What color was the star? He turned to Meta, irritated at his inability to be sure.

"Meta, what color is this sun? I've been all around the spectrum, and it's not red, blue, green, orange, violet—" He broke off, realizing what he had said and what he had seen. "An eighth color," he finished, anticlimatically.

"You and your talk of colors," Ringg grumbled, "I wish I knew what you Mentorians see! It's like trying to imagine seeing a smell or hearing light!"

Meta laughed. "As far as I know, no one's named it. Sometimes we Mentorians call it *catalyst color*. I think only Mentorians can see it as separate color."

"So what?" Ringg said impatiently, "What are we going to do, chatter about light waves or see the city?"

Bart acquiesced, trying to sound eager, but a wild excitement was gusting up in him. He dutifully pretended fascination with the towers, the many-leveled roads, the giant dams and pylons, but his thoughts were racing.

The eighth color! There can't be too many suns of this color, or they'd have named it and known it! And telescopes can find it.

Could success be salvaged, then, at the very edge of failure? Maybe he need not go empty-handed, empty-eyed, from the Lhari worlds! They had dismissed him, scornfully, stolen cookie in hand—but maybe it would be a bigger cookie than they dreamed!

The exhilaration lasted through the tour of the port, through the heavy surge of acceleration which brought them up, out and way from Council Planet. Bart, confined in Rugel's cabin, hardly felt like a prisoner, his mind busy with schemes.

I'll study star-maps, and spectroscope reports....

It lasted almost two days of shiptime, and they were readying for Acceleration Two, before he came, figuratively, down to earth. To pick one star out of trillions—and not even in his own galaxy? It would take a lifetime and he didn't even know which of the four or five spiral nebulae in the skies of the human worlds was the Lhari Galaxy. A lifetime? A hundred lifetimes wouldn't do it!

He might have known. If there had been one chance in the odd billion of his making any such discovery, the Lhari would never have given Vorongil permission for the intruder to visit the planet at all. He would have been returned to the *Swiftwing* as he had been taken from it, by closed car, and imprisoned, maybe even drugged, until he was safely back in the human worlds again.

He was under parole not to enter the drive chamber (and sure he would be stopped if he attempted it anyhow), but when Acceleration One was completed, he went to the viewport in the Recreation Lounge, and nobody threw him out. He stood long, looking at the unfamiliar galaxy of the Lhari stars; the unknown, forever unknowable constellations with their strange shapes. Stars green, gold, topaz, burning blue, sullen red, and the great strangely colored receding sun of the Lhari people, known to them by the melodious name of the Ke Lhiro—which meant, simply, *The Sun*: it was their first home.

Where had he seen that color? In that stolen glimpse of the Lhari ship landing, long ago? Of all the colors of space, this one he would never know.

He turned away from the unsolvable riddle of the strange constellations; and went to his cabin, to dream of the green star Meristem where he had first plotted known coordinates for a previously unknown world, and to wander in

baffling nightmares where he fed jagged, star-colored pieces of hail into the ship's computer and watched them come out as tiny paperdoll spaceships with the letterhead of Eight Colors printed neatly across their sides.

After the warp-drive shift, Vorongil came to his cabin, this time crisp and businesslike.

"We're back in your galaxy," he said, "among the stars you know. We have no passenger space on the *Swiftwing*; we had to ship out without replacing Rugel, which means we're short two men. I've no authority to ask this of you, but—would you like your old job back for the rest of the voyage?"

Bart glanced at his human hands.

Vorongil shrugged. "We've carried Mentorians as full-ranking Astrogators. There don't happen to be any on the *Swiftwing*. But there's no law about it."

Bart looked the old Lhari in the eye. "I won't accept Mentorian terms, Vorongil."

"I wouldn't ask it. You worked your way outward on this run, and the High Council didn't see fit to erase those memories or inhibit them. Why should I? Do you want it or not?"

Did he want it? Until this moment Bart had not identified the worst of his pain and defeat—to travel as a passenger, a supercargo, when he had once been part of the *Swiftwing*. Literally he ached to be back with it again. "I do, *rieko mori*."

"Very well," Vorongil rapped, "see that you turn out next watch!" He spun round and walked out. His tone was no longer gently indulgent, but sharp and distant. Bart, at first surprised, suddenly understood.

Not now a prisoner, a passenger, a guest on the *Swiftwing*. He was part of the crew again—and Vorongil was his captain.

The Lhari crew were oddly constrained at first. But Ringg was the same as always, and before long they were almost on the old terms. With every watch, it seemed, he was building a bridge between man and Lhari. They accepted him.

But for what? Something might come, in the far future, of his acceptance, but he wouldn't get the benefit of it. This would be his only voyage; after this he'd be chained again, crawling from planet to planet of a single sun. And as warp-shift followed warp-shift, the *Swiftwing* retracing the path of her outward cruise star by star, Bart said farewell to them.

One day, at last, he stood at the viewport, watching Procyon Alpha nearing. A year ago, frightened, terribly alone, still unsteady on his new Lhari muscles and terrified by the monsters that were his shipmates, he had watched these planets spinning away. Poor old Rugel, poor old Baldy!

Behind him, Meta came into the lounge.

"Bart—"

He turned to face her. "It won't be much longer, Meta. Tomorrow I'll find out what the Federation is going to do to me. *Conspiracy unlawfully to board*—and all the rest of it. Even if I don't go to a prison planet, I'll spend the rest of my life chained down to Vega."

"It doesn't have to be that way."

"What other choice is there?" he demanded.

"You're half Mentorian," she said, raising her eager face. "Oh, Bart, you love it so, you know you can't bear to give it up. Stay with us—please stay!"

Before answering, he looked out the viewport a last time. The clouds of cosmic dust swirled and foamed around the familiar jewels of his own sky. Blue, beloved Vega, burning in the heart of the Lyre—*home—when would he go home? He had no home now.* Yet his father had left him Vega Interplanet, as well as Eight Colors and a quest to the stars.

He searched for the topaz of Sol, where he had learned astrogation; Procyon, where he had become a Lhari; the ruby of Aldebaran (*hail and farewell, David Briscoe!*); the bloodstone of Antares, where he had learned fear and the shape of integrity. The colors, the unknowable colors of space. And others. Nameless stars where he and his Lhari shipmates had worked and played. And stars he had never seen and would never see, all the endless worlds beyond worlds and stars beyond stars....

He took a last, longing look at the colors of space, then turned his back on them, deliberately giving them up. He could not pay the price the Mentorians paid.

"No, Meta," he said huskily. "The Mentorian way is one way, but—I've had a taste of being one of the masters of space. It's more than most men ever have, maybe it's more than I deserve. But I can't settle for anything less. Not even if it means losing you."

He shut his eyes and stood, head bowed. When he looked up again, he was

alone with the stars beyond the viewport, and the lounge was empty.

CHAPTER FOURTEEN

The low rainbow building of Eight Colors, near the spaceport of Procyon Alpha, had not changed; and when Bart went in, as he had done a year ago, it seemed that the same varnished girl was sitting before the same glass desk, neon-edged and brittle, with the same chrome-tinged hair and blue fingernails. She looked at Bart in his Lhari clothing, at Meta in her Mentorian robe and cloak, at Ringg, and her unruffled dignity did not turn a hair.

"May I help you?" she inquired, still not caring.

"I want to see Raynor One."

"On what business, please?"

"Tell him," said Bart, with immense satisfaction, "that his boss is here—Bart Steele—and wants to see him right away."

It had a sort of disrupting effect. She seemed to go blurred at the edges. After a minute, blinking carefully, she spoke into the vision-screen, and reported, numbly, "Go on up, Mr. Steele."

He wasn't expecting a welcome. He said so as the elevator rose. "After all, if I'd never come back, he'd doubtless have inherited the whole Eight Colors line, unencumbered. I don't expect he'll be happy to see me. But he's the only one I can turn to."

The elevator stopped, opened. They stepped out, and a man stepped nervously toward them. For a moment, expecting Raynor One, Bart was deceived; then as the man's face spread in a smile of welcome, he stopped in incredulous delight.

"Raynor Three!"

In overflowing gladness, Bart hugged him. It was like a meeting with the dead. He felt as if he had really come home. "But—but you remember me!" he exclaimed, backing away, in amazement.

Slowly, the man nodded. His eyes were grave. "Yes. I decided it wasn't worth it, Bart, to go on losing everything that meant anything to me. Even if it meant I had to give up the stars, never travel again except as a passenger, I couldn't go on being afraid to remember, never knowing the consequences or responsibilities of what I'd done." His sad smile was strangely beautiful. "The *Multiphase* sailed without me. I've been here, hoping against hope that someday

I'd know the rest."

Associations clicked into place in Bart's mind. The *Multiphase*. So Raynor Three was the Mentorian who had smuggled David Briscoe off the ship, and whose memories, wrung out by the Lhari captain of that ship, had touched off so many deaths. But he had paid for that—paid many times over. And now must he pay for this, too?

Raynor One strode toward them. "So it's really you. I thought it might be a trap, but Three wouldn't listen. Word came from Antares that Montano had been arrested and his ship confiscated for illegal landing on Lharillis. I thought you were probably dead."

"We sent a boy to do a man's job," Raynor Three said, "and he came back a man. But tell me—" He looked curiously at Ringg and Meta.

Bart introduced them, adding, "I came for help, really. I'm facing charges, and I'm afraid you are, too."

Raynor One said harshly, "A trap, after all, Three! He trapped you, and he's led the Lhari to you!"

"No," Raynor Three said, "or he wouldn't be walking around free and unguarded and with all his memories intact. Tell me about it, Bart." And when Bart had given a quick narration of the Lhari judgment, he nodded, slowly.

"That's all we ever wanted. Don't think you failed, Bart. The horrible part was only the way they were trying to keep it secret."

Ringg interrupted, "Do not judge the Lhari by them, Raynor Three," and Raynor Three said in good Lhari, "I don't, feathertop. Raynors have been working with Lhari since the days of Rhazon of Nedrus. But I wanted an open, official statement of Lhari policy—not secret murders by fanatics. I had confidence in the Lhari as a people, but not in individuals. What good did it do to know that the Lhari council in another galaxy would have condemned the murders and manhunts, when they were going on in this one, day after day?

"Don't you see, Bart?" he continued, "you didn't fail—not if we're going to have the publicity of a test case, publicly heard. That means the Lhari are prepared to admit, before our whole galaxy, that humans *can* survive warp-drive without cold-sleep. That's all David Briscoe was trying to prove, or your father either—may they rest in peace. So, whatever happens, we've won."

"If you two idealists will give me a minute for cold realities," Raynor One

said, "there's this. Among other things. Bart's not yet of legal age. You may not know this, Bart, but your father appointed me your legal guardian. When I turned you over to Three, I'm afraid, I assumed legal responsibility for all the consequences. I ought to have kept you under my own supervision."

Bart smiled at Raynor One's stern face. "I crossed two galaxies, and faced the Lhari High Council, without you to hold my hand. I can face the Trade Federation."

"Naturally I will be responsible for your defense," Raynor One said stiffly.

"But I don't need a defense," Bart said, turning to Raynor Three and meeting his eyes. "I'm going to tell the truth, and let it stand. Don't worry, I'll make sure they don't hold you responsible for my actions."

"Another thing. Some lunatic from Capella arrived here and all but accused me of having you murdered. Do you know a Tommy Kendron?"

"Do I *know* him!" Bart interrupted with a joyful yell. "Tommy's *here*? Quick —where do I get in touch with him?"

An hour later they were all gathered at Raynor Three's country house. The talk went on far into the night. Tommy wanted to know everything, and both Raynors wanted to know every detail of Bart's year among the Lhari, while Meta and Ringg were both curious about how it had begun.

Bart tried to forget that the next day might bring trouble, even imprisonment. The Lhari Council had told him to talk as much as he liked about his voyage, and this might be his only chance. When he had finished, Tommy leaned forward and gripped Bart's hand tightly.

"You make them sound like pretty decent people," he said, looking at Ringg. "A year ago, if you'd told me I'd be here with a Lhari spaceman and a bunch of Mentorians, I'd never have believed it."

"Nor I, that I would be as friend under a human roof," Ringg replied. "But a friend to Bart is my friend also." He touched the faint discolored scars on his brow, saying softly, "But for Bart, I would not be here to greet anyone, man or Lhari, as friend."

"So," said Tommy triumphantly, "you haven't failed, even if you didn't discover the secret of the Eighth Color—"

But a sudden, blinding light burst over Bart as Ringg moved his hand to the scars. Once again he searched a cave beneath a green star, where Ringg lay

unconscious and bleeding, and played his Lhari light fearfully over a waterfall of colored minerals. *And there was one whose color he could not identify—red, blue, violet, green, none of these*—the color of an unknown star in an unknown galaxy, the shimmer of a landing Lhari ship, the color of an unknown element in an unknown fuel—

"The secret of the Eighth Color," he said, and stood up, his hands literally shaking in excitement. "I'm an *idiot*! No, don't ask me any questions! I could still be wrong. But even if I go to a prison planet, the Eighth Color isn't a secret any more!"

When the others had gone back to the city, he sat with Raynor Three in the room where the latter had told him of his father's death, where he had first seen his terrifying Lhari face. They spoke little, but Raynor Three finally asked, "Were you serious about not wanting a defense, Bart?"

"I was. All I want is a chance to tell my own story in my own way. Where everyone will hear me."

Raynor Three looked at him curiously. "There's something you're not telling, Bart. Want to tell me?"

Bart hesitated, then held out his hand and clasped his kinsman's. "Thanks —but no."

Raynor Three saw his hesitation and chuckled. "All right, son. Forget I asked. You've grown up."

It was good to sleep in a soft human-type bed again, to eat breakfast and shave and dress in ordinary human clothing again. But Bart folded his Lhari tights and the cloak tenderly, with regret. They were the memory of an experience no one else would ever have.

Raynor Three let him take the controls as they flew back to the spaceport city; and a little before noon they entered the great crystal pylon that was the headquarters of the Federation Trade Bureau on Procyon Alpha. Men and Lhari were moving in the lobby; among them Bart saw Vorongil, Meta at his side. He smiled at her, received a wan smile in return.

Would Vorongil feel that Bart had deceived him, betrayed him, when he heard Bart today?

In the hearing room, four white-crested Lhari sat across from four dignified, well-dressed men, representatives of the Federation of Intergalactic Trade. The

space beyond was wholly filled with people, crowded together, and carrying stereo cameras, intercom equipment, the creepie-peepie of the on-the-spot space commentator.

"Mr. Steele, we had hoped to make this a quiet hearing, without undue publicity. But we cannot deny the news media the privilege of covering it, unless you wish to claim the right to privacy."

"No, indeed," Bart said clearly. "I want them all to hear what I'm going to say."

Raynor One came up to the bench. "Bart, as your guardian, I advise against it. Some people will call this a publicity stunt. It won't do Eight Colors any good to admit that men have been spying on the Lhari—"

"I want press coverage," Bart repeated stubbornly, "and as many star-systems on the relay as possible."

"All right. But I wash my hands of it," Raynor One said angrily.

Bart told his story simply: his meeting with the elder Briscoe, his meeting with Raynor One—carefully not implicating Raynor One in the plot—Raynor Three's work in altering his appearance to that of a Lhari, and the major events of his cruise on the*Swiftwing*. When he came to the account of the shift into warp-drive, he saw the faces of the press reporters, and realized that for them this was the story of the year—or century: *humans can endure star-drive!* But he went on, not soft-pedaling Montano's attempted murder, his own choice, the trip to the Lhari world—

One of the board representatives interrupted testily, "What is the point of this lengthy narrative? You can give the story to the newsmen without our official sanction, if you want to make it a heroic epic, young Steele. We have heard sufficient to prove your guilt, and that of Raynor, in the violation of treaty —"

"Nevertheless, I want this official," Bart said. "I don't want to be mobbed when they hear that I have the secret of the star-drive."

The effect was electric. The four Lhari sat up; their white crests twitched. Vorongil stared, his gray eyes darkening with fear. One of the Lhari leaned forward, shooting the question at him harshly.

"You did *not* discover the coordinates of the Council Planet of Ke Lhiro! You did not discover—"

"I did not," Bart said quietly. "I don't know them and I have no intention of trying to find them. We don't need to go to the Lhari Galaxy to find the mineral that generates the warp-frequencies, that they call 'Catalyst A' and that the Mentorians call the 'Eighth Color.' There is a green star called Meristem, and a spectroscopic analysis of that star, I'm sure, will reveal what unknown elements it contains, and perhaps locate other stars with that element. There must be others in our galaxy, but the coordinates of the star Meristem are known to me."

Vorongil was staring at him, his mouth open. He leaped up and cried out, shaking, "But they assured us that among your memories—there was nothing of danger to us—"

Compassionately, gently, Bart said, "There wasn't—not that they knew about, Vorongil. I didn't realize it myself. I might never have remembered seeing a mineral that was of a color not found in the spectrum. Certainly, a memory like that meant nothing to the Lhari medics who emptied out my mind and turned over all my thoughts. You Lhari can't see color at all.

"So no one but I saw the color of the mineral in the cave; you Lhari yourselves don't *know* that your fuel looks unlike anything else in the universe. You never cared to find out how your world looked to your Mentorians. So your medics never questioned my memories of an eighth color. To you, it's just another shade of gray, but under a light strong enough to blind any but Mentorian eyes, it takes on a special color—"

The conference broke up in disorder, the four Lhari clustering together in a furious babble, then hastily leaving the room. Bart stood waiting, feeling empty and cold. Vorongil's stare baffled him with unreadable emotion.

"You fool, you unspeakable young idiot!" Raynor One groaned. "Why did you blurt it out like that before every news media in the galaxy? Why, we could have had a monopoly on the star-drive—Eight Colors and Vega Interplanet!" As he saw the men of the press approaching with their microphones, lights, cameras and TV equipment, he gripped Bart urgently by the arm.

"We can still salvage something! Don't talk any more! Refer them to me—say I'm your guardian and your business manager—you can still make something of this—"

"That's just what I don't want to do," Bart replied, and broke away from him to approach the newsmen.

"Yes, certainly, I'll answer all your questions, gentlemen."

Raynor One flung up his hands in despair, but over their shoulder he saw the glowing face of Meta, and smiled. She, at least, would understand. So would Raynor Three.

A page boy touched Bart on the arm. "Mr. Steele," he said, "you are to appear immediately before the World Council!"

He was to be asked one question again and again in the days that followed, but his real answer was to Meta and Raynor Three, looking quietly past Raynor One and speaking to the news cameras that would carry his words all over the galaxy to men and Lhari:

"Why didn't I keep it for myself? Because there are always men like Montano, who in their mistaken pride will murder and steal for such things. I want this knowledge to be open to all men, to be used for their benefit. There has been too much secrecy already. I want all men to have the stars."

He had to tell his story again and again to the hastily summoned representatives of the Galactic Federation. At one point the delegate from his home star of Vega actually rose and shouted to him, "This is treason! You betrayed your home world—and the whole human race! Don't you know the Lhari may fight a war over this?"

Bart remembered Vorongil's silent, sad confession of the Lhari fears.

"No," he said gently. "No. There won't be any war unless we start one. The Lhari won't start any war. Believe me."

But inwardly, he sweated. What *would* the Lhari do?

They had to wait for representatives of the Lhari Council to make the journey from their home galaxy; meanwhile they kept Bart in protective custody. There was, of course, no question of sending him to a "prison planet"; public opinion would have crucified any government that suggested punishment for the man who had discovered a human world with deposits of Catalyst A. Bart could claim an "explorer's share," and Raynor One had lost no time in filing that claim on his behalf.

But he was lonely and anxious. They had confined him to a set of rooms high in the building overlooking the spaceport; from the balcony he could see the ships landing and departing. Life went on, ships came and went, and out there in the vast night of space, the suns and colors flamed and rolled, heedless

of the little atoms that traveled and intrigued between them.

A night came when the buzzer sounded and he opened the door to Raynor One and Raynor Three.

"Better turn on your vision-screen, Bart. The Elder of the Lhari Council has arrived with their official decision, and he's going to announce it."

Bart waited, anxiously, pacing the room, while on the TV screen various dignitaries presented the Elder.

"We are the first race to travel the stars." A bald head, an ancient Lhari face seamed like glazed pottery, looked at Bart from the screen, and Bart remembered when he had stood before that face, sick with defeat. But now he need not pretend to hold his head erect.

"We have had a long and triumphant time as masters of the stars," the Lhari said. "But triumph and power will sicken and stagnate the race which holds them too long unchallenged. We reached this point once before. Then a Lhari captain, Rhazon of Nedrun, abandoned the safe ways of caution, and out of his blind leap in the blind dark came many good things. Trade with the human race. Our Mentorian allies. A system of mathematics to take the hazards from our star-travel.

"Yet once again the Lhari had grown cautious and fearful. And a young man named Bartol took a blind leap into unknown darkness, all alone—"

"Not alone," Bart said as if to himself, "it took two men called Briscoe. And my father. And a couple of Raynors. And even a man called Montano, because without that, I'd never have decided—"

"Like Rhazon of Nedrun, like all pioneers, this young man has been cursed by his own people, the very ones who will one day benefit from his daring. He has found his people a firm footing among the stars. It is too late for the Lhari to regret that we did not sooner extend you the hand of welcome there. You have climbed, unaided, to join us. For good or ill, we must make room for you.

"But there is room for all. Competition is the lifeblood of trade, and we face the future without fear, knowing that life still holds many surprises for the living. I say to you: welcome to the stars."

Even while Bart stood speechless with the knowledge of success, the door opened again, and Bart, turning, cried out in amazement.

"Tommy! Ringg! Meta!"

"Sure," Tommy exclaimed, "we've got to celebrate," but Bart stopped, looking past them.

"Captain Vorongil!" he said, and went to greet the old Lhari. "I thought you'd hate me, *rieko mori*." The term of respect fell naturally from his lips.

"I did, for a time," Vorongil said quietly. "But I remembered the day we stood on Lharillis, by the monument. And that you risked—perhaps your life, certainly your eyesight—to save us from death. So when the Elder asked for my estimate of your people, I gave it."

"I thought it sounded like you." Bart felt that his happiness was complete.

"And now," Ringg cried, "let's celebrate! Meta, you haven't even told him that he's free!"

But while the party got rolling, Bart wondered—free for what? And after a little while he went out on the balcony and stood looking down at the spaceport, where the *Swiftwing* lay in shadow, huge, beloved—renounced.

"What now, Bartol?" Vorongil's quiet voice asked from his elbow. "You're famous—notorious. You're going to be rich, and a celebrity."

"I was wishing I could get away until the excitement dies down."

"Well," said Vorongil, "why don't you? The *Swiftwing* ships out tonight, Bartol—for Antares and beyond. It will be a couple of years before your Eight Colors can be made over into an Interstellar line—and as Raynor One has said to me several times, he'll have to handle all those details, for you're not of age yet.

"I've been thinking. Now that we Lhari must share space with your people, you'll need experienced men for your ships. Unless we all want the disasters born of trial and error, we Lhari had better help you train your men quickly and well. I want you to go back on the *Swiftwing* with me. Not an apprentice, but representative of Eight Colors, to act as liaison between men and Lhari—at least until your own affairs claim your attention."

Behind them on the balcony, Tommy appeared, making signals to Bart: "Say yes! Say yes, Bart! *I* did!"

Bart's eyes suddenly filled. Out of defeat he had won success beyond his greatest hopes. But he did not feel all glad; he felt only a heavy responsibility. Whether good or bad came of the gift he had snatched from the stars, would rest in large measure on his own shoulders. He was going back to space—to learn

the responsibility that went with it.

"I accept," he said gravely.

"Oh, boy!" Tommy dragged Ringg into a sort of war dance of exuberant celebration, pointing at the flaring glow of the spaceport gates. "Here, by grace of the Lhari, stands the doorway to all the stars," he quoted. "Well, maybe you were here first. But look out—we're coming!"

A doorway to the stars. Bart had crossed that doorway once, frightened and alone. *Dad, if you could only know!* The first interstellar ship of Eight Colors was to bear the name *Rupert Steele*, but that was years in the future.

Now, looking at the *Swiftwing*, at Ringg and Tommy, at Raynor Three and Vorongil, who would all be his shipmates in the new world they were building, he felt suddenly very lonely again.

"Come in, Bart. It's your party," Meta said softly, and he felt her hand lying in his. He looked down at the pretty Mentorian girl. She would be with him, too. And suddenly he knew he would never be lonely again.

His arm around Meta, his friends—man and Lhari—at his shoulder, he went back to the celebration, to plan for the first intergalactic voyage to the stars.

The End

THE VARIABLE MAN



BY PHILIP K. DICK

ILLUSTRATED BY EBEL

He fixed things—clocks, refrigerators, vidsenders and destinies. But he had no business in the future, where the calculators could not handle him. He was Earth's only hope—and its sure failure!

I

Security Commissioner Reinhart rapidly climbed the front steps and entered the Council building. Council guards stepped quickly aside and he entered the familiar place of great whirring machines. His thin face rapt, eyes alight with emotion, Reinhart gazed intently up at the central SRB computer, studying its reading.

"Straight gain for the last quarter," observed Kaplan, the lab organizer. He grinned proudly, as if personally responsible. "Not bad, Commissioner."

"We're catching up to them," Reinhart retorted. "But too damn slowly. We must finally go over—and soon."

Kaplan was in a talkative mood. "We design new offensive weapons, they counter with improved defenses. And nothing is actually made! Continual improvement, but neither we nor Centaurus can stop designing long enough to stabilize for production."

"It will end," Reinhart stated coldly, "as soon as Terra turns out a weapon for which Centaurus can build no defense."

"Every weapon has a defense. Design and discord. Immediate obsolescence. Nothing lasts long enough to—"

"What we count on is the *lag*," Reinhart broke in, annoyed. His hard gray eyes bored into the lab organizer and Kaplan slunk back. "The time lag between our offensive design and their counter development. The lag varies." He waved impatiently toward the massed banks of SRB machines. "As you well know."

At this moment, 9:30 AM, May 7, 2136, the statistical ratio on the SRB machines stood at 21-17 on the Centauran side of the ledger. All facts considered, the odds favored a successful repulsion by Proxima Centaurus of a Terran military attack. The ratio was based on the total information known to the SRB machines, on a gestalt of the vast flow of data that poured in endlessly from all sectors of the Sol and Centaurus systems.

21-17 on the Centauran side. But a month ago it had been 24-18 in the enemy's favor. Things were improving, slowly but steadily. Centaurus, older and less virile than Terra, was unable to match Terra's rate of technocratic advance. Terra was pulling ahead.

"If we went to war now," Reinhart said thoughtfully, "we would lose. We're not far enough along to risk an overt attack." A harsh, ruthless glow twisted across his handsome features, distorting them into a stern mask. "But the odds are moving in our favor. Our offensive designs are gradually gaining on their defenses."

"Let's hope the war comes soon," Kaplan agreed. "We're all on edge. This damn waiting…."

The war would come soon. Reinhart knew it intuitively. The air was full of tension, the *elan*. He left the SRB rooms and hurried down the corridor to his own elaborately guarded office in the Security wing. It wouldn't be long. He could practically feel the hot breath of destiny on his neck—for him a pleasant feeling. His thin lips set in a humorless smile, showing an even line of white teeth against his tanned skin. It made him feel good, all right. He'd been working at it a long time.

First contact, a hundred years earlier, had ignited instant conflict between Proxima Centauran outposts and exploring Terran raiders. Flash fights, sudden eruptions of fire and energy beams.

And then the long, dreary years of inaction between enemies where contact required years of travel, even at nearly the speed of light. The two systems were evenly matched. Screen against screen. Warship against power station. The Centauran Empire surrounded Terra, an iron ring that couldn't be broken, rusty and corroded as it was. Radical new weapons had to be conceived, if Terra was to break out.

Through the windows of his office, Reinhart could see endless buildings and streets, Terrans hurrying back and forth. Bright specks that were commute ships, little eggs that carried businessmen and white-collar workers around. The huge transport tubes that shot masses of workmen to factories and labor camps from their housing units. All these people, waiting to break out. Waiting for the day.

Reinhart snapped on his vidscreen, the confidential channel. "Give me

Military Designs," he ordered sharply.

He sat tense, his wiry body taut, as the vidscreen warmed into life. Abruptly he was facing the hulking image of Peter Sherikov, director of the vast network of labs under the Ural Mountains.

Sherikov's great bearded features hardened as he recognized Reinhart. His bushy black eyebrows pulled up in a sullen line. "What do you want? You know I'm busy. We have too much work to do, as it is. Without being bothered by—politicians."

"I'm dropping over your way," Reinhart answered lazily. He adjusted the cuff of his immaculate gray cloak. "I want a full description of your work and whatever progress you've made."

"You'll find a regular departmental report plate filed in the usual way, around your office someplace. If you'll refer to that you'll know exactly what we —"

"I'm not interested in that. I want to *see* what you're doing. And I expect you to be prepared to describe your work fully. I'll be there shortly. Half an hour."

Reinhart cut the circuit. Sherikov's heavy features dwindled and faded. Reinhart relaxed, letting his breath out. Too bad he had to work with Sherikov. He had never liked the man. The big Polish scientist was an individualist, refusing to integrate himself with society. Independent, atomistic in outlook. He held concepts of the individual as an end, diametrically contrary to the accepted organic state Weltansicht.

But Sherikov was the leading research scientist, in charge of the Military Designs Department. And on Designs the whole future of Terra depended. Victory over Centaurus—or more waiting, bottled up in the Sol System, surrounded by a rotting, hostile Empire, now sinking into ruin and decay, yet still strong.

Reinhart got quickly to his feet and left the office. He hurried down the hall and out of the Council building.

A few minutes later he was heading across the mid-morning sky in his highspeed cruiser, toward the Asiatic land-mass, the vast Ural mountain range. Toward the Military Designs labs.

Sherikov met him at the entrance. "Look here, Reinhart. Don't think you're going to order me around. I'm not going to—"

"Take it easy." Reinhart fell into step beside the bigger man. They passed through the check and into the auxiliary labs. "No immediate coercion will be exerted over you or your staff. You're free to continue your work as you see fit—for the present. Let's get this straight. My concern is to integrate your work with our total social needs. As long as your work is sufficiently productive—"

Reinhart stopped in his tracks.

"Pretty, isn't he?" Sherikov said ironically.

"What the hell is it?

"Icarus, we call him. Remember the Greek myth? The legend of Icarus. Icarus flew…. This Icarus is going to fly, one of these days." Sherikov shrugged. "You can examine him, if you want. I suppose this is what you came here to see."

Reinhart advanced slowly. "This is the weapon you've been working on?"

"How does he look?"

Rising up in the center of the chamber was a squat metal cylinder, a great ugly cone of dark gray. Technicians circled around it, wiring up the exposed relay banks. Reinhart caught a glimpse of endless tubes and filaments, a maze of wires and terminals and parts criss-crossing each other, layer on layer.

"What is it?" Reinhart perched on the edge of a workbench, leaning his big shoulders against the wall. "An idea of Jamison Hedge—the same man who developed our instantaneous interstellar vidcasts forty years ago. He was trying to find a method of faster than light travel when he was killed, destroyed along with most of his work. After that ftl research was abandoned. It looked as if there were no future in it."

"Wasn't it shown that nothing could travel faster than light?"

"The interstellar vidcasts do! No, Hedge developed a valid ftl drive. He managed to propel an object at fifty times the speed of light. But as the object gained speed, its length began to diminish and its mass increased. This was in line with familiar twentieth-century concepts of mass-energy transformation. We conjectured that as Hedge's object gained velocity it would continue to lose length and gain mass until its length became nil and its mass infinite. Nobody can imagine such an object."

"Go on."

"But what actually occurred is this. Hedge's object continued to lose length

and gain mass until it reached the theoretical limit of velocity, the speed of light. At that point the object, still gaining speed, simply ceased to exist. Having no length, it ceased to occupy space. It disappeared. However, the object had not been *destroyed*. It continued on its way, gaining momentum each moment, moving in an arc across the galaxy, away from the Sol system. Hedge's object entered some other realm of being, beyond our powers of conception. The next phase of Hedge's experiment consisted in a search for some way to slow the ftl object down, back to a sub-ftl speed, hence back into our universe. This counterprinciple was eventually worked out."

"With what result?"

"The death of Hedge and destruction of most of his equipment. His experimental object, in re-entering the space-time universe, came into being in space already occupied by matter. Possessing an incredible mass, just below infinity level, Hedge's object exploded in a titanic cataclysm. It was obvious that no space travel was possible with such a drive. Virtually all space contains *some* matter. To re-enter space would bring automatic destruction. Hedge had found his ftl drive and his counterprinciple, but no one before this has been able to put them to any use."

Reinhart walked over toward the great metal cylinder. Sherikov jumped down and followed him. "I don't get it," Reinhart said. "You said the principle is no good for space travel."

"That's right."

"What's this for, then? If the ship explodes as soon as it returns to our universe—"

"This is not a ship." Sherikov grinned slyly. "Icarus is the first practical application of Hedge's principles. Icarus is a bomb."

"So this is our weapon," Reinhart said. "A bomb. An immense bomb."

"A bomb, moving at a velocity greater than light. A bomb which will not exist in our universe. The Centaurans won't be able to detect or stop it. How could they? As soon as it passes the speed of light it will cease to exist—beyond all detection."

"But—"

"Icarus will be launched outside the lab, on the surface. He will align himself with Proxima Centaurus, gaining speed rapidly. By the time he reaches

his destination he will be traveling at ftl-100. Icarus will be brought back to this universe within Centaurus itself. The explosion should destroy the star and wash away most of its planets—including their central hub-planet, Armun. There is no way they can halt Icarus, once he has been launched. No defense is possible. Nothing can stop him. It is a real fact."

"When will he be ready?"

Sherikov's eyes flickered. "Soon."

"Exactly how soon?"

The big Pole hesitated. "As a matter of fact, there's only one thing holding us back."

Sherikov led Reinhart around to the other side of the lab. He pushed a lab guard out of the way.

"See this?" He tapped a round globe, open at one end, the size of a grapefruit. "This is holding us up."

"What is it?"

"The central control turret. This thing brings Icarus back to sub-ftl flight at the correct moment. It must be absolutely accurate. Icarus will be within the star only a matter of a microsecond. If the turret does not function exactly, Icarus will pass out the other side and shoot beyond the Centauran system."

"How near completed is this turret?"

Sherikov hedged uncertainly, spreading out his big hands. "Who can say? It must be wired with infinitely minute equipment—microscope grapples and wires invisible to the naked eye."

"Can you name any completion date?"

Sherikov reached into his coat and brought out a manila folder. "I've drawn up the data for the SRB machines, giving a date of completion. You can go ahead and feed it. I entered ten days as the maximum period. The machines can work from that."

Reinhart accepted the folder cautiously. "You're sure about the date? I'm not convinced I can trust you, Sherikov."

Sherikov's features darkened. "You'll have to take a chance, Commissioner. I don't trust you any more than you trust me. I know how much you'd like an excuse to get me out of here and one of your puppets in."

Reinhart studied the huge scientist thoughtfully. Sherikov was going to be a

hard nut to crack. Designs was responsible to Security, not the Council. Sherikov was losing ground—but he was still a potential danger. Stubborn, individualistic, refusing to subordinate his welfare to the general good.

"All right." Reinhart put the folder slowly away in his coat. "I'll feed it. But you better be able to come through. There can't be any slip-ups. Too much hangs on the next few days."

"If the odds change in our favor are you going to give the mobilization order?"

"Yes," Reinhart stated. "I'll give the order the moment I see the odds change."

Standing in front of the machines, Reinhart waited nervously for the results. It was two o'clock in the afternoon. The day was warm, a pleasant May afternoon. Outside the building the daily life of the planet went on as usual.

As usual? Not exactly. The feeling was in the air, an expanding excitement growing every day. Terra had waited a long time. The attack on Proxima Centaurus had to come—and the sooner the better. The ancient Centauran Empire hemmed in Terra, bottled the human race up in its one system. A vast, suffocating net draped across the heavens, cutting Terra off from the bright diamonds beyond…. And it had to end.

The SRB machines whirred, the visible combination disappearing. For a time no ratio showed. Reinhart tensed, his body rigid. He waited.

The new ratio appeared.

Reinhart gasped. 7-6. Toward Terra!

Within five minutes the emergency mobilization alert had been flashed to all Government departments. The Council and President Duffe had been called to immediate session. Everything was happening fast.

But there was no doubt. 7-6. In Terra's favor. Reinhart hurried frantically to get his papers in order, in time for the Council session.

At histo-research the message plate was quickly pulled from the confidential slot and rushed across the central lab to the chief official.

"Look at this!" Fredman dropped the plate on his superior's desk. "Look at it!"

Harper picked up the plate, scanning it rapidly. "Sounds like the real thing. I didn't think we'd live to see it."

Fredman left the room, hurrying down the hall. He entered the time bubble office. "Where's the bubble?" he demanded, looking around.

One of the technicians looked slowly up. "Back about two hundred years. We're coming up with interesting data on the War of 1914. According to material the bubble has already brought up—"

"Cut it. We're through with routine work. Get the bubble back to the present. From now on all equipment has to be free for Military work."

"But—the bubble is regulated automatically."

"You can bring it back manually."

"It's risky." The technician hedged. "If the emergency requires it, I suppose we could take a chance and cut the automatic."

"The emergency requires *everything*," Fredman said feelingly.

"But the odds might change back," Margaret Duffe, President of the Council, said nervously. "Any minute they can revert."

"This is our chance!" Reinhart snapped, his temper rising. "What the hell's the matter with you? We've waited years for this."

The Council buzzed with excitement. Margaret Duffe hesitated uncertainly, her blue eyes clouded with worry. "I realize the opportunity is here. At least, statistically. But the new odds have just appeared. How do we know they'll last? They stand on the basis of a single weapon."

"You're wrong. You don't grasp the situation." Reinhart held himself in check with great effort. "Sherikov's weapon tipped the ratio in our favor. But the odds have been moving in our direction for months. It was only a question of time. The new balance was inevitable, sooner or later. It's not just Sherikov. He's only one factor in this. It's all nine planets of the Sol System—not a single man."

One of the Councilmen stood up. "The President must be aware the entire planet is eager to end this waiting. All our activities for the past eighty years have been directed toward—"

Reinhart moved close to the slender President of the Council. "If you don't approve the war, there probably will be mass rioting. Public reaction will be strong. Damn strong. And you know it."

Margaret Duffe shot him a cold glance. "You sent out the emergency order to force my hand. You were fully aware of what you were doing. You knew once

the order was out there'd be no stopping things."

A murmur rushed through the Council, gaining volume. "We have to approve the war!… We're committed!… It's too late to turn back!"

Shouts, angry voices, insistent waves of sound lapped around Margaret Duffe. "I'm as much for the war as anybody," she said sharply. "I'm only urging moderation. An inter-system war is a big thing. We're going to war because a machine says we have a statistical chance of winning."

"There's no use starting the war unless we can win it," Reinhart said. "The SRB machines tell us whether we can win."

"They tell us our *chance* of winning. They don't guarantee anything."

"What more can we ask, beside a good chance of winning?"

Margaret Duffe clamped her jaw together tightly. "All right. I hear all the clamor. I won't stand in the way of Council approval. The vote can go ahead." Her cold, alert eyes appraised Reinhart. "Especially since the emergency order has already been sent out to all Government departments."

"Good." Reinhart stepped away with relief. "Then it's settled. We can finally go ahead with full mobilization."

Mobilization proceeded rapidly. The next forty-eight hours were alive with activity.

Reinhart attended a policy-level Military briefing in the Council rooms, conducted by Fleet Commander Carleton.

"You can see our strategy," Carleton said. He traced a diagram on the blackboard with a wave of his hand. "Sherikov states it'll take eight more days to complete the ftl bomb. During that time the fleet we have near the Centauran system will take up positions. As the bomb goes off the fleet will begin operations against the remaining Centauran ships. Many will no doubt survive the blast, but with Armun gone we should be able to handle them."

Reinhart took Commander Carleton's place. "I can report on the economic situation. Every factory on Terra is converted to arms production. With Armun out of the way we should be able to promote mass insurrection among the Centauran colonies. An inter-system Empire is hard to maintain, even with ships that approach light speed. Local war-lords should pop up all over the place. We want to have weapons available for them and ships starting *now* to reach them in time. Eventually we hope to provide a unifying principle around

which the colonies can all collect. Our interest is more economic than political. They can have any kind of government they want, as long as they act as supply areas for us. As our eight system planets act now."

Carleton resumed his report. "Once the Centauran fleet has been scattered we can begin the crucial stage of the war. The landing of men and supplies from the ships we have waiting in all key areas throughout the Centauran system. In this stage—"

Reinhart moved away. It was hard to believe only two days had passed since the mobilization order had been sent out. The whole system was alive, functioning with feverish activity. Countless problems were being solved—but much remained.

He entered the lift and ascended to the SRB room, curious to see if there had been any change in the machines' reading. He found it the same. So far so good. Did the Centaurans know about Icarus? No doubt; but there wasn't anything they could do about it. At least, not in eight days.

Kaplan came over to Reinhart, sorting a new batch of data that had come in. The lab organizer searched through his data. "An amusing item came in. It might interest you." He handed a message plate to Reinhart.

It was from histo-research:

May 9, 2136

This is to report that in bringing the research time bubble up to the present the manual return was used for the first time. Therefore a clean break was not made, and a quantity of material from the past was brought forward. This material included an individual from the early twentieth century who escaped from the lab immediately. He has not yet been taken into protective custody. Histo-research regrets this incident, but attributes it to the emergency.

E. Fredman

Reinhart handed the plate back to Kaplan. "Interesting. A man from the past—hauled into the middle of the biggest war the universe has seen."

"Strange things happen. I wonder what the machines will think."

"Hard to say. Probably nothing." Reinhart left the room and hurried along the corridor to his own office.

As soon as he was inside he called Sherikov on the vidscreen, using the confidential line.

The Pole's heavy features appeared. "Good day, Commissioner. How's the war effort?"

"Fine. How's the turret wiring proceeding?"

A faint frown flickered across Sherikov's face. "As a matter of fact, Commissioner—"

"What's the matter?" Reinhart said sharply.

Sherikov floundered. "You know how these things are. I've taken my crew off it and tried robot workers. They have greater dexterity, but they can't make decisions. This calls for more than mere dexterity. This calls for—" He searched for the word. "—for an *artist*."

Reinhart's face hardened. "Listen, Sherikov. You have eight days left to complete the bomb. The data given to the SRB machines contained that information. The 7-6 ratio is based on that estimate. If you don't come through —"

Sherikov twisted in embarrassment. "Don't get excited, Commissioner. We'll complete it."

"I hope so. Call me as soon as it's done." Reinhart snapped off the connection. If Sherikov let them down he'd have him taken out and shot. The whole war depended on the ftl bomb.

The vidscreen glowed again. Reinhart snapped it on. Kaplan's face formed on it. The lab organizer's face was pale and frozen. "Commissioner, you better come up to the SRB office. Something's happened."

"What is it?"

"I'll show you."

Alarmed, Reinhart hurried out of his office and down the corridor. He found Kaplan standing in front of the SRB machines. "What's the story?" Reinhart demanded. He glanced down at the reading. It was unchanged.

Kaplan held up a message plate nervously. "A moment ago I fed this into the machines. After I saw the results I quickly removed it. It's that item I showed you. From histo-research. About the man from the past."

"What happened when you fed it?"

Kaplan swallowed unhappily. "I'll show you. I'll do it again. Exactly as before." He fed the plate into a moving intake belt. "Watch the visible figures," Kaplan muttered.

Reinhart watched, tense and rigid. For a moment nothing happened. 7-6 continued to show. Then—

The figures disappeared. The machines faltered. New figures showed briefly. 4-24 for Centaurus. Reinhart gasped, suddenly sick with apprehension. But the figures vanished. New figures appeared. 16-38 for Centaurus. Then 48-86. 79-15 in Terra's favor. Then nothing. The machines whirred, but nothing happened.

Nothing at all. No figures. Only a blank.

"What's it mean?" Reinhart muttered, dazed.

"It's fantastic. We didn't think this could—"

"*What's happened?*"

"The machines aren't able to handle the item. No reading can come. It's data they can't integrate. They can't use it for prediction material, and it throws off all their other figures."

"Why?"

"It's—it's a variable." Kaplan was shaking, white-lipped and pale. "Something from which no inference can be made. The man from the past. The machines can't deal with him. The variable man!"

II

Thomas Cole was sharpening a knife with his whetstone when the tornado hit.

The knife belonged to the lady in the big green house. Every time Cole came by with his Fixit cart the lady had something to be sharpened. Once in awhile she gave him a cup of coffee, hot black coffee from an old bent pot. He liked that fine; he enjoyed good coffee.

The day was drizzly and overcast. Business had been bad. An automobile had scared his two horses. On bad days less people were outside and he had to get down from the cart and go to ring doorbells.

But the man in the yellow house had given him a dollar for fixing his electric refrigerator. Nobody else had been able to fix it, not even the factory man. The dollar would go a long way. A dollar was a lot.

He knew it was a tornado even before it hit him. Everything was silent. He was bent over his whetstone, the reins between his knees, absorbed in his work.

He had done a good job on the knife; he was almost finished. He spat on the

blade and was holding it up to see—and then the tornado came.

All at once it was there, completely around him. Nothing but grayness. He and the cart and horses seemed to be in a calm spot in the center of the tornado. They were moving in a great silence, gray mist everywhere.

And while he was wondering what to do, and how to get the lady's knife back to her, all at once there was a bump and the tornado tipped him over, sprawled out on the ground. The horses screamed in fear, struggling to pick themselves up. Cole got quickly to his feet.

Where was he?

The grayness was gone. White walls stuck up on all sides. A deep light gleamed down, not daylight but something like it. The team was pulling the cart on its side, dragging it along, tools and equipment falling out. Cole righted the cart, leaping up onto the seat.

And for the first time saw the people.

Men, with astonished white faces, in some sort of uniforms. Shouts, noise and confusion. And a feeling of danger!

Cole headed the team toward the door. Hoofs thundered steel against steel as they pounded through the doorway, scattering the astonished men in all directions. He was out in a wide hall. A building, like a hospital.

The hall divided. More men were coming, spilling from all sides.

Shouting and milling in excitement, like white ants. Something cut past him, a beam of dark violet. It seared off a corner of the cart, leaving the wood smoking.

Cole felt fear. He kicked at the terrified horses. They reached a big door, crashing wildly against it. The door gave—and they were outside, bright sunlight blinking down on them. For a sickening second the cart tilted, almost turning over. Then the horses gained speed, racing across an open field, toward a distant line of green, Cole holding tightly to the reins.

Behind him the little white-faced men had come out and were standing in a group, gesturing frantically. He could hear their faint shrill shouts.

But he had got away. He was safe. He slowed the horses down and began to breathe again.

The woods were artificial. Some kind of park. But the park was wild and overgrown. A dense jungle of twisted plants. Everything growing in confusion.

The park was empty. No one was there. By the position of the sun he could tell it was either early morning or late afternoon. The smell of the flowers and grass, the dampness of the leaves, indicated morning. It had been late afternoon when the tornado had picked him up. And the sky had been overcast and cloudy.

Cole considered. Clearly, he had been carried a long way. The hospital, the men with white faces, the odd lighting, the accented words he had caught—everything indicated he was no longer in Nebraska—maybe not even in the United States.

Some of his tools had fallen out and gotten lost along the way. Cole collected everything that remained, sorting them, running his fingers over each tool with affection. Some of the little chisels and wood gouges were gone. The bit box had opened, and most of the smaller bits had been lost. He gathered up those that remained and replaced them tenderly in the box. He took a key-hole saw down, and with an oil rag wiped it carefully and replaced it.

Above the cart the sun rose slowly in the sky. Cole peered up, his horny hand over his eyes. A big man, stoop-shouldered, his chin gray and stubbled. His clothes wrinkled and dirty. But his eyes were clear, a pale blue, and his hands were finely made.

He could not stay in the park. They had seen him ride that way; they would be looking for him.

Far above something shot rapidly across the sky. A tiny black dot moving with incredible haste. A second dot followed. The two dots were gone almost before he saw them. They were utterly silent.

Cole frowned, perturbed. The dots made him uneasy. He would have to keep moving—and looking for food. His stomach was already beginning to rumble and groan.

Work. There was plenty he could do: gardening, sharpening, grinding, repair work on machines and clocks, fixing all kinds of household things. Even painting and odd jobs and carpentry and chores.

He could do anything. Anything people wanted done. For a meal and pocket money.

Thomas Cole urged the team into life, moving forward. He sat hunched over in the seat, watching intently, as the Fixit cart rolled slowly across the tangled

grass, through the jungle of trees and flowers.

Reinhart hurried, racing his cruiser at top speed, followed by a second ship, a military escort. The ground sped by below him, a blur of gray and green.

The remains of New York lay spread out, a twisted, blunted ruin overgrown with weeds and grass. The great atomic wars of the twentieth century had turned virtually the whole seaboard area into an endless waste of slag.

Slag and weeds below him. And then the sudden tangle that had been Central Park.

Histo-research came into sight. Reinhart swooped down, bringing his cruiser to rest at the small supply field behind the main buildings.

Harper, the chief official of the department, came quickly over as soon as Reinhart's ship landed.

"Frankly, we don't understand why you consider this matter important," Harper said uneasily.

Reinhart shot him a cold glance. "I'll be the judge of what's important. Are you the one who gave the order to bring the bubble back manually?"

"Fredman gave the actual order. In line with your directive to have all facilities ready for—"

Reinhart headed toward the entrance of the research building. "Where is Fredman?"

"Inside."

"I want to see him. Let's go."

Fredman met them inside. He greeted Reinhart calmly, showing no emotion. "Sorry to cause you trouble, Commissioner. We were trying to get the station in order for the war. We wanted the bubble back as quickly as possible." He eyed Reinhart curiously. "No doubt the man and his cart will soon be picked up by your police."

"I want to know everything that happened, in exact detail."

Fredman shifted uncomfortably. "There's not much to tell. I gave the order to have the automatic setting canceled and the bubble brought back manually. At the moment the signal reached it, the bubble was passing through the spring of 1913. As it broke loose, it tore off a piece of ground on which this person and his cart were located. The person naturally was brought up to the present, inside the bubble."

"Didn't any of your instruments tell you the bubble was loaded?"

"We were too excited to take any readings. Half an hour after the manual control was thrown, the bubble materialized in the observation room. It was de-energized before anyone noticed what was inside. We tried to stop him but he drove the cart out into the hall, bowling us out of the way. The horses were in a panic."

"What kind of cart was it?"

"There was some kind of sign on it. Painted in black letters on both sides. No one saw what it was."

"Go ahead. What happened then?"

"Somebody fired a Slem-ray after him, but it missed. The horses carried him out of the building and onto the grounds. By the time we reached the exit the cart was half way to the park."

Reinhart reflected. "If he's still in the park we should have him shortly. But we must be careful." He was already starting back toward his ship, leaving Fredman behind. Harper fell in beside him.

Reinhart halted by his ship. He beckoned some Government guards over. "Put the executive staff of this department under arrest. I'll have them tried on a treason count, later on." He smiled ironically as Harper's face blanched sickly pale. "There's a war going on. You'll be lucky if you get off alive."

Reinhart entered his ship and left the surface, rising rapidly into the sky. A second ship followed after him, a military escort. Reinhart flew high above the sea of gray slag, the unrecovered waste area. He passed over a sudden square of green set in the ocean of gray. Reinhart gazed back at it until it was gone.

Central Park. He could see police ships racing through the sky, ships and transports loaded with troops, heading toward the square of green. On the ground some heavy guns and surface cars rumbled along, lines of black approaching the park from all sides.

They would have the man soon. But meanwhile, the SRB machines were blank. And on the SRB machines' readings the whole war depended.

About noon the cart reached the edge of the park. Cole rested for a moment, allowing the horses time to crop at the thick grass. The silent expanse of slag amazed him. What had happened? Nothing stirred. No buildings, no sign of life. Grass and weeds poked up occasionally through it, breaking the flat surface

here and there, but even so, the sight gave him an uneasy chill.

Cole drove the cart slowly out onto the slag, studying the sky above him. There was nothing to hide him, now that he was out of the park. The slag was bare and uniform, like the ocean. If he were spotted—

A horde of tiny black dots raced across the sky, coming rapidly closer. Presently they veered to the right and disappeared. More planes, wingless metal planes. He watched them go, driving slowly on.

Half an hour later something appeared ahead. Cole slowed the cart down, peering to see. The slag came to an end. He had reached its limits. Ground appeared, dark soil and grass. Weeds grew everywhere. Ahead of him, beyond the end of the slag, was a line of buildings, houses of some sort. Or sheds.

Houses, probably. But not like any he had ever seen.

The houses were uniform, all exactly the same. Like little green shells, rows of them, several hundred. There was a little lawn in front of each. Lawn, a path, a front porch, bushes in a meager row around each house. But the houses were all alike and very small.

Little green shells in precise, even rows. He urged the cart cautiously forward, toward the houses.

No one seemed to be around. He entered a street between two rows of houses, the hoofs of his two horses sounding loudly in the silence. He was in some kind of town. But there were no dogs or children. Everything was neat and silent. Like a model. An exhibit. It made him uncomfortable.

A young man walking along the pavement gaped at him in wonder. An oddly-dressed youth, in a toga-like cloak that hung down to his knees. A single piece of fabric. And sandals.

Or what looked like sandals. Both the cloak and the sandals were of some strange half-luminous material. It glowed faintly in the sunlight. Metallic, rather than cloth.

A woman was watering flowers at the edge of a lawn. She straightened up as his team of horses came near. Her eyes widened in astonishment—and then fear. Her mouth fell open in a soundless *O* and her sprinkling can slipped from her fingers and rolled silently onto the lawn.

Cole blushed and turned his head quickly away. The woman was scarcely dressed! He flicked the reins and urged the horses to hurry.

Behind him, the woman still stood. He stole a brief, hasty look back—and then shouted hoarsely to his team, ears scarlet. He had seen right. She wore only a pair of translucent shorts. Nothing else. A mere fragment of the same half-luminous material that glowed and sparkled. The rest of her small body was utterly naked.

He slowed the team down. She had been pretty. Brown hair and eyes, deep red lips. Quite a good figure. Slender waist, downy legs, bare and supple, full breasts—. He clamped the thought furiously off. He had to get to work. Business.

Cole halted the Fixit cart and leaped down onto the pavement. He selected a house at random and approached it cautiously. The house was attractive. It had a certain simple beauty. But it looked frail—and exactly like the others.

He stepped up on the porch. There was no bell. He searched for it, running his hand uneasily over the surface of the door. All at once there was a click, a sharp snap on a level with his eyes. Cole glanced up, startled. A lens was vanishing as the door section slid over it. He had been photographed.

While he was wondering what it meant, the door swung suddenly open. A man filled up the entrance, a big man in a tan uniform, blocking the way ominously.

"What do you want?" the man demanded.

"I'm looking for work," Cole murmured. "Any kind of work. I can do anything, fix any kind of thing. I repair broken objects. Things that need mending." His voice trailed off uncertainly. "Anything at all."

"Apply to the Placement Department of the Federal Activities Control Board," the man said crisply. "You know all occupational therapy is handled through them." He eyed Cole curiously. "Why have you got on those ancient clothes?"

"Ancient? Why, I—"

The man gazed past him at the Fixit cart and the two dozing horses. "What's that? What are those two animals? *Horses?*" The man rubbed his jaw, studying Cole intently. "That's strange," he said.

"Strange?" Cole murmured uneasily. "Why?"

"There haven't been any horses for over a century. All the horses were wiped out during the Fifth Atomic War. That's why it's strange."

Cole tensed, suddenly alert. There was something in the man's eyes, a hardness, a piercing look. Cole moved back off the porch, onto the path. He had to be careful. Something was wrong.

"I'll be going," he murmured.

"There haven't been any horses for over a hundred years." The man came toward Cole. "Who are you? Why are you dressed up like that? Where did you get that vehicle and pair of horses?"

"I'll be going," Cole repeated, moving away.

The man whipped something from his belt, a thin metal tube. He stuck it toward Cole.

It was a rolled-up paper, a thin sheet of metal in the form of a tube. Words, some kind of script. He could not make any of them out. The man's picture, rows of numbers, figures—

"I'm Director Winslow," the man said. "Federal Stockpile Conservation. You better talk fast, or there'll be a Security car here in five minutes."

Cole moved—fast. He raced, head down, back along the path to the cart, toward the street.

Something hit him. A wall of force, throwing him down on his face. He sprawled in a heap, numb and dazed. His body ached, vibrating wildly, out of control. Waves of shock rolled over him, gradually diminishing.

He got shakily to his feet. His head spun. He was weak, shattered, trembling violently. The man was coming down the walk after him. Cole pulled himself onto the cart, gasping and retching. The horses jumped into life. Cole rolled over against the seat, sick with the motion of the swaying cart.

He caught hold of the reins and managed to drag himself up in a sitting position. The cart gained speed, turning a corner. Houses flew past. Cole urged the team weakly, drawing great shuddering breaths. Houses and streets, a blur of motion, as the cart flew faster and faster along.

Then he was leaving the town, leaving the neat little houses behind. He was on some sort of highway. Big buildings, factories, on both sides of the highway. Figures, men watching in astonishment.

After awhile the factories fell behind. Cole slowed the team down. What had the man meant? Fifth Atomic War. Horses destroyed. It didn't make sense. And they had things he knew nothing about. Force fields. Planes without wings—

soundless.

Cole reached around in his pockets. He found the identification tube the man had handed him. In the excitement he had carried it off. He unrolled the tube slowly and began to study it. The writing was strange to him.

For a long time he studied the tube. Then, gradually, he became aware of something. Something in the top right-hand corner.

A date. October 6, 2128.

Cole's vision blurred. Everything spun and wavered around him. October, 2128. Could it be?

But he held the paper in his hand. Thin, metal paper. Like foil. And it had to be. It said so, right in the corner, printed on the paper itself.

Cole rolled the tube up slowly, numbed with shock. Two hundred years. It didn't seem possible. But things were beginning to make sense. He was in the future, two hundred years in the future.

While he was mulling this over, the swift black Security ship appeared overhead, diving rapidly toward the horse-drawn cart, as it moved slowly along the road.

Reinhart's vidscreen buzzed. He snapped it quickly on. "Yes?"

"Report from Security."

"Put it through." Reinhart waited tensely as the lines locked in place. The screen re-lit.

"This is Dixon. Western Regional Command." The officer cleared his throat, shuffling his message plates. "The man from the past has been reported, moving away from the New York area."

"Which side of your net?"

"Outside. He evaded the net around Central Park by entering one of the small towns at the rim of the slag area."

"*Evaded?*"

"We assumed he would avoid the towns. Naturally the net failed to encompass any of the towns."

Reinhart's jaw stiffened. "Go on."

"He entered the town of Petersville a few minutes before the net closed around the park. We burned the park level, but naturally found nothing. He had already gone. An hour later we received a report from a resident in Petersville,

an official of the Stockpile Conservation Department. The man from the past had come to his door, looking for work. Winslow, the official, engaged him in conversation, trying to hold onto him, but he escaped, driving his cart off. Winslow called Security right away, but by then it was too late."

"Report to me as soon as anything more comes in. We must have him—and damn soon." Reinhart snapped the screen off. It died quickly.

He sat back in his chair, waiting.

Cole saw the shadow of the Security ship. He reacted at once. A second after the shadow passed over him, Cole was out of the cart, running and falling. He rolled, twisting and turning, pulling his body as far away from the cart as possible.

There was a blinding roar and flash of white light. A hot wind rolled over Cole, picking him up and tossing him like a leaf. He shut his eyes, letting his body relax. He bounced, falling and striking the ground. Gravel and stones tore into his face, his knees, the palms of his hands.

Cole cried out, shrieking in pain. His body was on fire. He was being consumed, incinerated by the blinding white orb of fire. The orb expanded, growing in size, swelling like some monstrous sun, twisted and bloated. The end had come. There was no hope. He gritted his teeth—

The greedy orb faded, dying down. It sputtered and winked out, blackening into ash. The air reeked, a bitter acrid smell. His clothes were burning and smoking. The ground under him was hot, baked dry, seared by the blast. But he was alive. At least, for awhile.

Cole opened his eyes slowly. The cart was gone. A great hole gaped where it had been, a shattered sore in the center of the highway. An ugly cloud hung above the hole, black and ominous. Far above, the wingless plane circled, watching for any signs of life.

Cole lay, breathing shallowly, slowly. Time passed. The sun moved across the sky with agonizing slowness. It was perhaps four in the afternoon. Cole calculated mentally. In three hours it would be dark. If he could stay alive until then—

Had the plane seen him leap from the cart?

He lay without moving. The late afternoon sun beat down on him. He felt sick, nauseated and feverish. His mouth was dry.

Some ants ran over his outstretched hand. Gradually, the immense black cloud was beginning to drift away, dispersing into a formless blob.

The cart was gone. The thought lashed against him, pounding at his brain, mixing with his labored pulse-beat. *Gone.* Destroyed. Nothing but ashes and debris remained. The realization dazed him.

Finally the plane finished its circling, winging its way toward the horizon. At last it vanished. The sky was clear.

Cole got unsteadily to his feet. He wiped his face shakily. His body ached and trembled. He spat a couple times, trying to clear his mouth. The plane would probably send in a report. People would be coming to look for him. Where could he go?

To his right a line of hills rose up, a distant green mass. Maybe he could reach them. He began to walk slowly. He had to be very careful. They were looking for him—and they had weapons. Incredible weapons.

He would be lucky to still be alive when the sun set. His team and Fixit cart were gone—and all his tools. Cole reached into his pockets, searching through them hopefully. He brought out some small screwdrivers, a little pair of cutting pliers, some wire, some solder, the whetstone, and finally the lady's knife.

Only a few small tools remained. He had lost everything else. But without the cart he was safer, harder to spot. They would have more trouble finding him, on foot.

Cole hurried along, crossing the level fields toward the distant range of hills.

The call came through to Reinhart almost at once. Dixon's features formed on the vidscreen. "I have a further report, Commissioner." Dixon scanned the plate. "Good news. The man from the past was sighted moving away from Petersville, along highway 13, at about ten miles an hour, on his horse-drawn cart. Our ship bombed him immediately."

"Did—did you get him?"

"The pilot reports no sign of life after the blast."

Reinhart's pulse almost stopped. He sank back in his chair. "Then he's dead!"

"Actually, we won't know for certain until we can examine the debris. A surface car is speeding toward the spot. We should have the complete report in

a short time. We'll notify you as soon as the information comes in."

Reinhart reached out and cut the screen. It faded into darkness. Had they got the man from the past? Or had he escaped again? Weren't they ever going to get him? Couldn't he be captured? And meanwhile, the SRB machines were silent, showing nothing at all.

Reinhart sat brooding, waiting impatiently for the report of the surface car to come in.

It was evening.

"Come on!" Steven shouted, running frantically after his brother. "Come on back!"

"Catch me." Earl ran and ran, down the side of the hill, over behind a military storage depot, along a neotex fence, jumping finally down into Mrs. Norris' back yard.

Steven hurried after his brother, sobbing for breath, shouting and gasping as he ran. "Come back! You come back with that!"

"What's he got?" Sally Tate demanded, stepping out suddenly to block Steven's way.



http://www.gutenberg.org/files/32154/32154-h/images/illo2.jpg

Steven halted, his chest rising and falling. “He’s got my intersystem vidsender.” His small face twisted with rage and misery. “He better give it back!”

Earl came circling around from the right. In the warm gloom of evening he was almost invisible. “Here I am,” he announced. “What you going to do?”

Steven glared at him hotly. His eyes made out the square box in Earl’s hands. “You give that back! Or—or I’ll tell Dad.”

Earl laughed. “Make me.”

“Dad’ll make you.”

“You better give it to him,” Sally said.

“Catch me.” Earl started off. Steven pushed Sally out of the way, lashing wildly at his brother. He collided with him, throwing him sprawling. The box fell from Earl’s hands. It skidded to the pavement, crashing into the side of a guide-light post.

Earl and Steven picked themselves up slowly. They gazed down at the

broken box.

"See?" Steven shrilled, tears filling his eyes. "See what you did?"

"You did it. You pushed into me."

"You did it!"" Steven bent down and picked up the box. He carried it over to the guide-light, sitting down on the curb to examine it.

Earl came slowly over. "If you hadn't pushed me it wouldn't have got broken."

Night was descending rapidly. The line of hills rising above the town were already lost in darkness. A few lights had come on here and there. The evening was warm. A surface car slammed its doors, some place off in the distance. In the sky ships droned back and forth, weary commuters coming home from work in the big underground factory units.

Thomas Cole came slowly toward the three children grouped around the guide-light. He moved with difficulty, his body sore and bent with fatigue. Night had come, but he was not safe yet.

He was tired, exhausted and hungry. He had walked a long way. And he had to have something to eat—soon.

A few feet from the children Cole stopped. They were all intent and absorbed by the box on Steven's knees. Suddenly a hush fell over the children. Earl looked up slowly.

In the dim light the big stooped figure of Thomas Cole seemed extra menacing. His long arms hung down loosely at his sides. His face was lost in shadow. His body was shapeless, indistinct. A big unformed statue, standing silently a few feet away, unmoving in the half-darkness.

"Who are you?" Earl demanded, his voice low.

"What do you want?" Sally said. The children edged away nervously. "Get away."

Cole came toward them. He bent down a little. The beam from the guide-light crossed his features. Lean, prominent nose, beak-like, faded blue eyes—

Steven scrambled to his feet, clutching the vidsender box. "You get out of here!"

"Wait." Cole smiled crookedly at them. His voice was dry and raspy. "What do you have there?" He pointed with his long, slender fingers. "The box you're holding."

The children were silent. Finally Steven stirred. "It's my inter-system vidsender."

"Only it doesn't work," Sally said.

"Earl broke it." Steven glared at his brother bitterly. "Earl threw it down and broke it."

Cole smiled a little. He sank down wearily on the edge of the curb, sighing with relief. He had been walking too long. His body ached with fatigue. He was hungry, and tired. For a long time he sat, wiping perspiration from his neck and face, too exhausted to speak.

"Who are you?" Sally demanded, at last. "Why do you have on those funny clothes? Where did you come from?"

"Where?" Cole looked around at the children. "From a long way off. A long way." He shook his head slowly from side to side, trying to clear it.

"What's your therapy?" Earl said.

"My therapy?"

"What do you do? Where do you work?"

Cole took a deep breath and let it out again slowly. "I fix things. All kinds of things. Any kind."

Earl sneered. "Nobody fixes things. When they break you throw them away."

Cole didn't hear him. Sudden need had roused him, getting him suddenly to his feet. "You know any work I can find?" he demanded. "Things I could do? I can fix anything. Clocks, type-writers, refrigerators, pots and pans. Leaks in the roof. I can fix anything there is."

Steven held out his inter-system vidsender. "Fix this."

There was silence. Slowly, Cole's eyes focussed on the box. "That?"

"My sender. Earl broke it."

Cole took the box slowly. He turned it over, holding it up to the light. He frowned, concentrating on it. His long, slender fingers moved carefully over the surface, exploring it.

"He'll steal it!" Earl said suddenly.

"No." Cole shook his head vaguely. "I'm reliable." His sensitive fingers found the studs that held the box together. He depressed the studs, pushing them expertly in. The box opened, revealing its complex interior.

"He got it open," Sally whispered.

"Give it back!" Steven demanded, a little frightened. He held out his hand. "I want it back."

The three children watched Cole apprehensively. Cole fumbled in his pocket. Slowly he brought out his tiny screwdrivers and pliers. He laid them in a row beside him. He made no move to return the box.

"I want it back," Steven said feebly.

Cole looked up. His faded blue eyes took in the sight of the three children standing before him in the gloom. "I'll fix it for you. You said you wanted it fixed."

"I want it back." Steven stood on one foot, then the other, torn by doubt and indecision. "Can you really fix it? Can you make it work again?"

"Yes."

"All right. Fix it for me, then."

A sly smile flickered across Cole's tired face. "Now, wait a minute. If I fix it, will you bring me something to eat? I'm not fixing it for nothing."

"Something to eat?"

"Food. I need hot food. Maybe some coffee."

Steven nodded. "Yes. I'll get it for you."

Cole relaxed. "Fine. That's fine." He turned his attention back to the box resting between his knees. "Then I'll fix it for you. I'll fix it for you good."

His fingers flew, working and twisting, tracing down wires and relays, exploring and examining. Finding out about the inter-system vidsender. Discovering how it worked.

Steven slipped into the house through the emergency door. He made his way to the kitchen with great care, walking on tip-toe. He punched the kitchen controls at random, his heart beating excitedly. The stove began to whirr, purring into life. Meter readings came on, crossing toward the completion marks.

Presently the stove opened, sliding out a tray of steaming dishes. The mechanism clicked off, dying into silence. Steven grabbed up the contents of the tray, filling his arms. He carried everything down the hall, out the emergency door and into the yard. The yard was dark. Steven felt his way carefully along.

He managed to reach the guide-light without dropping anything at all.

Thomas Cole got slowly to his feet as Steven came into view. "Here," Steven said. He dumped the food onto the curb, gasping for breath. "Here's the food. Is it finished?"

Cole held out the inter-system vidsender. "It's finished. It was pretty badly smashed."

Earl and Sally gazed up, wide-eyed. "Does it work?" Sally asked.

"Of course not," Earl stated. "How could it work? He couldn't—"

"Turn it on!" Sally nudged Steven eagerly. "See if it works."

Steven was holding the box under the light, examining the switches. He clicked the main switch on. The indicator light gleamed. "It lights up," Steven said.

"Say something into it."

Steven spoke into the box. "Hello! Hello! This is operator 6-Z75 calling. Can you hear me? This is operator 6-Z75. Can you hear me?"

In the darkness, away from the beam of the guide-light, Thomas Cole sat crouched over the food. He ate gratefully, silently. It was good food, well cooked and seasoned. He drank a container of orange juice and then a sweet drink he didn't recognize. Most of the food was strange to him, but he didn't care. He had walked a long way and he was plenty hungry. And he still had a long way to go, before morning. He had to be deep in the hills before the sun came up. Instinct told him that he would be safe among the trees and tangled growth—at least, as safe as he could hope for.

He ate rapidly, intent on the food. He did not look up until he was finished. Then he got slowly to his feet, wiping his mouth with the back of his hand.

The three children were standing around in a circle, operating the inter-system vidsender. He watched them for a few minutes. None of them looked up from the small box. They were intent, absorbed in what they were doing.

"Well?" Cole said, at last. "Does it work all right?"

After a moment Steven looked up at him. There was a strange expression on his face. He nodded slowly. "Yes. Yes, it works. It works fine."

Cole grunted. "All right." He turned and moved away from the light. "That's fine."

The children watched silently until the figure of Thomas Cole had

completely disappeared. Slowly, they turned and looked at each other. Then down at the box in Steven's hands. They gazed at the box in growing awe. Awe mixed with dawning fear.

Steven turned and edged toward his house. "I've got to show it to my Dad," he murmured, dazed. "He's got to know. *Somebody's* got to know!"

III

Eric Reinhart examined the vidsender box carefully, turning it around and around.

"Then he did escape from the blast," Dixon admitted reluctantly. "He must have leaped from the cart just before the concussion."

Reinhart nodded. "He escaped. He got away from you—twice." He pushed the vidsender box away and leaned abruptly toward the man standing uneasily in front of his desk. "What's your name again?"

"Elliot. Richard Elliot."

"And your son's name?"

"Steven."

"It was last night this happened?"

"About eight o'clock."

"Go on."

"Steven came into the house. He acted queerly. He was carrying his inter-system vidsender." Elliot pointed at the box on Reinhart's desk. "That. He was nervous and excited. I asked what was wrong. For awhile he couldn't tell me. He was quite upset. Then he showed me the vidsender." Elliot took a deep, shaky breath. "I could see right away it was different. You see I'm an electrical engineer. I had opened it once before, to put in a new battery. I had a fairly good idea how it should look." Elliot hesitated. "Commissioner, it had been *changed*. A lot of the wiring was different. Moved around. Relays connected differently. Some parts were missing. New parts had been jury rigged out of old. Then I discovered the thing that made me call Security. The vidsender—it really *worked*."

"Worked?"

"You see, it never was anything more than a toy. With a range of a few city blocks. So the kids could call back and forth from their rooms. Like a sort of portable vidscreen. Commissioner, I tried out the vidsender, pushing the call

button and speaking into the microphone. I—I got a ship of the line. A battleship, operating beyond Proxima Centaurus—over eight light years away. As far out as the actual vidsenders operate. Then I called Security. Right away."

For a time Reinhart was silent. Finally he tapped the box lying on the desk. "You got a ship of the line—with *this?*"

"That's right."

"How big are the regular vidsenders?"

Dixon supplied the information. "As big as a twenty-ton safe."

"That's what I thought." Reinhart waved his hand impatiently. "All right, Elliot. Thanks for turning the information over to us. That's all."

Security police led Elliot outside the office.

Reinhart and Dixon looked at each other. "This is bad," Reinhart said harshly. "He has some ability, some kind of mechanical ability. Genius, perhaps, to do a thing like this. Look at the period he came from, Dixon. The early part of the twentieth century. Before the wars began. That was a unique period. There was a certain vitality, a certain ability. It was a period of incredible growth and discovery. Edison. Pasteur. Burbank. The Wright brothers. Inventions and machines. People had an uncanny ability with machines. A kind of intuition about machines—which we don't have."

"You mean—"

"I mean a person like this coming into our own time is bad in itself, war or no war. He's too different. He's oriented along different lines. He has abilities we lack. This fixing skill of his. It throws us off, out of kilter. And with the war….

"Now I'm beginning to understand why the SRB machines couldn't factor him. It's impossible for us to understand this kind of person. Winslow says he asked for work, any kind of work. The man said he could do anything, fix anything. Do you understand what that means?"

"No," Dixon said. "What does it mean?"

"Can any of us fix anything? No. None of us can do that. We're specialized. Each of us has his own line, his own work. I understand my work, you understand yours. The tendency in evolution is toward greater and greater specialization. Man's society is an ecology that forces adaptation to it. Continual complexity makes it impossible for any of us to know anything outside our own

personal field—I can't follow the work of the man sitting at the next desk over from me. Too much knowledge has piled up in each field. And there's too many fields.

"This man is different. He can fix anything, do anything. He doesn't work with knowledge, with science—the classified accumulation of facts. He *knows* nothing. It's not in his head, a form of learning. He works by intuition—his power is in his hands, not his head. Jack-of-all-trades. His hands! Like a painter, an artist. In his hands—and he cuts across our lives like a knife-blade."

"And the other problem?"

"The other problem is that this man, this variable man, has escaped into the Albertine Mountain range. Now we'll have one hell of a time finding him. He's clever—in a strange kind of way. Like some sort of animal. He's going to be hard to catch."

Reinhart sent Dixon out. After a moment he gathered up the handful of reports on his desk and carried them up to the SRB room. The SRB room was closed up, sealed off by a ring of armed Security police. Standing angrily before the ring of police was Peter Sherikov, his beard waggling angrily, his immense hands on his hips.

"What's going on?" Sherikov demanded. "Why can't I go in and peep at the odds?"

"Sorry." Reinhart cleared the police aside. "Come inside with me. I'll explain." The doors opened for them and they entered. Behind them the doors shut and the ring of police formed outside. "What brings you away from your lab?" Reinhart asked.

Sherikov shrugged. "Several things. I wanted to see you. I called you on the vidphone and they said you weren't available. I thought maybe something had happened. What's up?"

"I'll tell you in a few minutes." Reinhart called Kaplan over. "Here are some new items. Feed them in right away. I want to see if the machines can total them."

"Certainly, Commissioner." Kaplan took the message plates and placed them on an intake belt. The machines hummed into life.

"We'll know soon," Reinhart said, half aloud.

Sherikov shot him a keen glance. "We'll know what? Let me in on it. What's taking place?"

"We're in trouble. For twenty-four hours the machines haven't given any reading at all. Nothing but a blank. A total blank."

Sherikov's features registered disbelief. "But that isn't possible. *Some* odds exist at all times."

"The odds exist, but the machines aren't able to calculate them."

"Why not?"

"Because a variable factor has been introduced. A factor which the machines can't handle. They can't make any predictions from it."

"Can't they reject it?" Sherikov said slyly. "Can't they just—just *ignore* it?"

"No. It exists, as real data. Therefore it affects the balance of the material, the sum total of all other available data. To reject it would be to give a false reading. The machines can't reject any data that's known to be true."

Sherikov pulled moodily at his black beard. "I would be interested in knowing what sort of factor the machines can't handle. I thought they could take in all data pertaining to contemporary reality."

"They can. This factor has nothing to do with contemporary reality. That's the trouble. Histo-research in bringing its time bubble back from the past got overzealous and cut the circuit too quickly. The bubble came back loaded—with a man from the twentieth century. A man from the past."

"I see. A man from two centuries ago." The big Pole frowned. "And with a radically different Weltanschauung. No connection with our present society. Not integrated along our lines at all. Therefore the SRB machines are perplexed."

Reinhart grinned. "Perplexed? I suppose so. In any case, they can't do anything with the data about this man. The variable man. No statistics at all have been thrown up—no predictions have been made. And it knocks everything else out of phase. We're dependent on the constant showing of these odds. The whole war effort is geared around them."

"The horse-shoe nail. Remember the old poem? 'For want of a nail the shoe was lost. For want of the shoe the horse was lost. For want of the horse the rider was lost. For want—'"

"Exactly. A single factor coming along like this, one single individual, can

throw everything off. It doesn't seem possible that one person could knock an entire society out of balance—but apparently it is."

"What are you doing about this man?"

"The Security police are organized in a mass search for him."

"Results?"

"He escaped into the Albertine Mountain Range last night. It'll be hard to find him. We must expect him to be loose for another forty-eight hours. It'll take that long for us to arrange the annihilation of the range area. Perhaps a trifle longer. And meanwhile—"

"Ready, Commissioner," Kaplan interrupted. "The new totals."

The SRB machines had finished factoring the new data. Reinhart and Sherikov hurried to take their places before the view windows.

For a moment nothing happened. Then odds were put up, locking in place.

Sherikov gasped. 99-2. In favor of Terra. "That's wonderful! Now we—"

The odds vanished. New odds took their places. 97-4. In favor of Centaurus. Sherikov groaned in astonished dismay. "Wait," Reinhart said to him. "I don't think they'll last."

The odds vanished. A rapid series of odds shot across the screen, a violent stream of numbers, changing almost instantly. At last the machines became silent.

Nothing showed. No odds. No totals at all. The view windows were blank.

"You see?" Reinhart murmured. "The same damn thing!"

Sherikov pondered. "Reinhart, you're too Anglo-Saxon, too impulsive. Be more Slavic. This man will be captured and destroyed within two days. You said so yourself. Meanwhile, we're all working night and day on the war effort. The warfleet is waiting near Proxima, taking up positions for the attack on the Centaurans. All our war plants are going full blast. By the time the attack date comes we'll have a full-sized invasion army ready to take off for the long trip to the Centauran colonies. The whole Terran population has been mobilized. The eight supply planets are pouring in material. All this is going on day and night, even without odds showing. Long before the attack comes this man will certainly be dead, and the machines will be able to show odds again."

Reinhart considered. "But it worries me, a man like that out in the open. Loose. A man who can't be predicted. It goes against science. We've been

making statistical reports on society for two centuries. We have immense files of data. The machines are able to predict what each person and group will do at a given time, in a given situation. But this man is beyond all prediction. He's a variable. It's contrary to science."

"The indeterminate particle."

"What's that?"

"The particle that moves in such a way that we can't predict what position it will occupy at a given second. Random. The random particle."

"Exactly. It's—it's *unnatural*."

Sherikov laughed sarcastically. "Don't worry about it, Commissioner. The man will be captured and things will return to their natural state. You'll be able to predict people again, like laboratory rats in a maze. By the way—why is this room guarded?"

"I don't want anyone to know the machines show no totals. It's dangerous to the war effort."

"Margaret Duffe, for example?"

Reinhart nodded reluctantly. "They're too timid, these parliamentarians. If they discover we have no SRB odds they'll want to shut down the war planning and go back to waiting."

"Too slow for you, Commissioner? Laws, debates, council meetings, discussions…. Saves a lot of time if one man has all the power. One man to tell people what to do, think for them, lead them around."

Reinhart eyed the big Pole critically. "That reminds me. How is Icarus coming? Have you continued to make progress on the control turret?"

A scowl crossed Sherikov's broad features. "The control turret?" He waved his big hand vaguely. "I would say it's coming along all right. We'll catch up in time."

Instantly Reinhart became alert. "Catch up? You mean you're still behind?"

"Somewhat. A little. But we'll catch up." Sherikov retreated toward the door. "Let's go down to the cafeteria and have a cup of coffee. You worry too much, Commissioner. Take things more in your stride."

"I suppose you're right." The two men walked out into the hall. "I'm on edge. This variable man. I can't get him out of my mind."

"Has he done anything yet?"

"Nothing important. Rewired a child's toy. A toy vidsender."

"Oh?" Sherikov showed interest. "What do you mean? What did he do?"

"I'll show you." Reinhart led Sherikov down the hall to his office. They entered and Reinhart locked the door. He handed Sherikov the toy and roughed in what Cole had done. A strange look crossed Sherikov's face. He found the studs on the box and depressed them. The box opened. The big Pole sat down at the desk and began to study the interior of the box. "You're sure it was the man from the past who rewired this?"

"Of course. On the spot. The boy damaged it playing. The variable man came along and the boy asked him to fix it. He fixed it, all right."

"Incredible." Sherikov's eyes were only an inch from the wiring. "Such tiny relays. How could he—"

"What?"

"Nothing." Sherikov got abruptly to his feet, closing the box carefully. "Can I take this along? To my lab? I'd like to analyze it more fully."

"Of course. But why?"

"No special reason. Let's go get our coffee." Sherikov headed toward the door. "You say you expect to capture this man in a day or so?"

"*Kill* him, not capture him. We've got to eliminate him as a piece of data. We're assembling the attack formations right now. No slip-ups, this time. We're in the process of setting up a cross-bombing pattern to level the entire Albertine range. He must be destroyed, within the next forty-eight hours."

Sherikov nodded absently. "Of course," he murmured. A preoccupied expression still remained on his broad features. "I understand perfectly."

Thomas Cole crouched over the fire he had built, warming his hands. It was almost morning. The sky was turning violet gray. The mountain air was crisp and chill. Cole shivered and pulled himself closer to the fire.

The heat felt good against his hands. *His hands.* He gazed down at them, glowing yellow-red in the firelight. The nails were black and chipped. Warts and endless calluses on each finger, and the palms. But they were good hands; the fingers were long and tapered. He respected them, although in some ways he didn't understand them.

Cole was deep in thought, meditating over his situation. He had been in the

mountains two nights and a day. The first night had been the worst. Stumbling and falling, making his way uncertainly up the steep slopes, through the tangled brush and undergrowth—

But when the sun came up he was safe, deep in the mountains, between two great peaks. And by the time the sun had set again he had fixed himself up a shelter and a means of making a fire. Now he had a neat little box trap, operated by a plaited grass rope and pit, a notched stake. One rabbit already hung by his hind legs and the trap was waiting for another.

The sky turned from violet gray to a deep cold gray, a metallic color. The mountains were silent and empty. Far off some place a bird sang, its voice echoing across the vast slopes and ravines. Other birds began to sing. Off to his right something crashed through the brush, an animal pushing its way along.

Day was coming. His second day. Cole got to his feet and began to unfasten the rabbit. Time to eat. And then? After that he had no plans. He knew instinctively that he could keep himself alive indefinitely with the tools he had retained, and the genius of his hands. He could kill game and skin it. Eventually he could build himself a permanent shelter, even make clothes but of hides. In winter—

But he was not thinking that far ahead. Cole stood by the fire, staring up at the sky, his hands on his hips. He squinted, suddenly tense. Something was moving. Something in the sky, drifting slowly through the grayness. A black dot.

He stamped out the fire quickly. What was it? He strained, trying to see. A bird?

A second dot joined the first. Two dots. Then three. Four. Five. A fleet of them, moving rapidly across the early morning sky. Toward the mountains.

Toward him.

Cole hurried away from the fire. He snatched up the rabbit and carried it along with him, into the tangled shelter he had built. He was invisible, inside the shelter. No one could find him. But if they had seen the fire—

He crouched in the shelter, watching the dots grow larger. They were planes, all right. Black wingless planes, coming closer each moment. Now he could hear them, a faint dull buzz, increasing until the ground shook under him.

The first plane dived. It dropped like a stone, swelling into a great black shape. Cole gasped, sinking down. The plane roared in an arc, swooping low

over the ground. Suddenly bundles tumbled out, white bundles falling and scattering like seeds.

The bundles drifted rapidly to the ground. They landed. They were men. Men in uniform.

Now the second plane was diving. It roared overhead, releasing its load. More bundles tumbled out, filling the sky. The third plane dived, then the fourth. The air was thick with drifting bundles of white, a blanket of descending weed spores, settling to earth.

On the ground the soldiers were forming into groups. Their shouts carried to Cole, crouched in his shelter. Fear leaped through him. They were landing on all sides of him. He was cut off. The last two planes had dropped men behind him.

He got to his feet, pushing out of the shelter. Some of the soldiers had found the fire, the ashes and coals. One dropped down, feeling the coals with his hand. He waved to the others. They were circling all around, shouting and gesturing. One of them began to set up some kind of gun. Others were unrolling coils of tubing, locking a collection of strange pipes and machinery in place.

Cole ran. He rolled down a slope, sliding and falling. At the bottom he leaped to his feet and plunged into the brush. Vines and leaves tore at his face, slashing and cutting him. He fell again, tangled in a mass of twisted shrubbery. He fought desperately, trying to free himself. If he could reach the knife in his pocket—

Voices. Footsteps. Men were behind him, running down the slope. Cole struggled frantically, gasping and twisting, trying to pull loose. He strained, breaking the vines, clawing at them with his hands.

A soldier dropped to his knee, leveling his gun. More soldiers arrived, bringing up their rifles and aiming.

Cole cried out. He closed his eyes, his body suddenly limp. He waited, his teeth locked together, sweat dripping down his neck, into his shirt, sagging against the mesh of vines and branches coiled around him.

Silence.

Cole opened his eyes slowly. The soldiers had regrouped. A huge man was striding down the slope toward them, barking orders as he came.

Two soldiers stepped into the brush. One of them grabbed Cole by the

shoulder.

"Don't let go of him." The huge man came over, his black beard jutting out. "Hold on."

Cole gasped for breath. He was caught. There was nothing he could do. More soldiers were pouring down into the gulley, surrounding him on all sides. They studied him curiously, murmuring together. Cole shook his head wearily and said nothing.

The huge man with the beard stood directly in front of him, his hands on his hips, looking him up and down. "Don't try to get away," the man said. "You can't get away. Do you understand?"

Cole nodded.

"All right. Good." The man waved. Soldiers clamped metal bands around Cole's arms and wrists. The metal dug into his flesh, making him gasp with pain. More clamps locked around his legs. "Those stay there until we're out of here. A long way out."

"Where—where are you taking me?"

Peter Sherikov studied the variable man for a moment before he answered. "Where? I'm taking you to my labs. Under the Urals." He glanced suddenly up at the sky. "We better hurry. The Security police will be starting their demolition attack in a few hours. We want to be a long way from here when that begins."

Sherikov settled down in his comfortable reinforced chair with a sigh. "It's good to be back." He signalled to one of his guards. "All right. You can unfasten him."

The metal clamps were removed from Cole's arms and legs. He sagged, sinking down in a heap. Sherikov watched him silently.

Cole sat on the floor, rubbing his wrists and legs, saying nothing.

"What do you want?" Sherikov demanded. "Food? Are you hungry?"

"No."

"Medicine? Are you sick? Injured?"

"No."

Sherikov wrinkled his nose. "A bath wouldn't hurt you any. We'll arrange that later." He lit a cigar, blowing a cloud of gray smoke around him. At the door of the room two lab guards stood with guns ready. No one else was in the

room beside Sherikov and Cole.

Thomas Cole sat huddled in a heap on the floor, his head sunk down against his chest. He did not stir. His bent body seemed more elongated and stooped than ever, his hair tousled and unkempt, his chin and jowls a rough stubbled gray. His clothes were dirty and torn from crawling through the brush. His skin was cut and scratched; open sores dotted his neck and cheeks and forehead. He said nothing. His chest rose and fell. His faded blue eyes were almost closed. He looked quite old, a withered, dried-up old man.

Sherikov waved one of the guards over. "Have a doctor brought up here. I want this man checked over. He may need intravenous injections. He may not have had anything to eat for awhile."

The guard departed.

"I don't want anything to happen to you," Sherikov said. "Before we go on I'll have you checked over. And deloused at the same time."

Cole said nothing.

Sherikov laughed. "Buck up! You have no reason to feel bad." He leaned toward Cole, jabbing an immense finger at him. "Another two hours and you'd have been dead, out there in the mountains. You know that?"

Cole nodded.

"You don't believe me. Look." Sherikov leaned over and snapped on the vidscreen mounted in the wall. "Watch, this. The operation should still be going on."

The screen lit up. A scene gained form.

"This is a confidential Security channel. I had it tapped several years ago—for my own protection. What we're seeing now is being piped in to Eric Reinhart." Sherikov grinned. "Reinhart arranged what you're seeing on the screen. Pay close attention. You were there, two hours ago."

Cole turned toward the screen. At first he could not make out what was happening. The screen showed a vast foaming cloud, a vortex of motion. From the speaker came a low rumble, a deep-throated roar. After a time the screen shifted, showing a slightly different view. Suddenly Cole stiffened.

He was seeing the destruction of a whole mountain range.

The picture was coming from a ship, flying above what had once been the Albertine Mountain Range. Now there was nothing but swirling clouds of gray

and columns of particles and debris, a surging tide of restless material gradually sweeping off and dissipating in all directions.

The Albertine Mountains had been disintegrated. Nothing remained but these vast clouds of debris. Below, on the ground, a ragged plain stretched out, swept by fire and ruin. Gaping wounds yawned, immense holes without bottom, craters side by side as far as the eye could see. Craters and debris. Like the blasted, pitted surface of the moon. Two hours ago it had been rolling peaks and gulleys, brush and green bushes and trees.

Cole turned away.

"You see?" Sherikov snapped the screen off. "You were down there, not so long ago. All that noise and smoke—all for you. All for you, Mr. Variable Man from the past. Reinhart arranged that, to finish you off. I want you to understand that. It's very important that you realize that."

Cole said nothing.

Sherikov reached into a drawer of the table before him. He carefully brought out a small square box and held it out to Cole. "You wired this, didn't you?"

Cole took the box in his hands and held it. For a time his tired mind failed to focus. What did he have? He concentrated on it. The box was the children's toy. The inter-system vidsender, they had called it.

"Yes. I fixed this." He passed it back to Sherikov. "I repaired that. It was broken."

Sherikov gazed down at him intently, his large eyes bright. He nodded, his black beard and cigar rising and falling. "Good. That's all I wanted to know." He got suddenly to his feet, pushing his chair back. "I see the doctor's here. He'll fix you up. Everything you need. Later on I'll talk to you again."

Unprotesting, Cole got to his feet, allowing the doctor to take hold of his arm and help him up.

After Cole had been released by the medical department, Sherikov joined him in his private dining room, a floor above the actual laboratory.

The Pole gulped down a hasty meal, talking as he ate. Cole sat silently across from him, not eating or speaking. His old clothing had been taken away and new clothing given him. He was shaved and rubbed down. His sores and cuts were healed, his body and hair washed. He looked much healthier and

younger, now. But he was still stooped and tired, his blue eyes worn and faded. He listened to Sherikov's account of the world of 2136 AD without comment.

"You can see," Sherikov said finally, waving a chicken leg, "that your appearance here has been very upsetting to our program. Now that you know more about us you can see why Commissioner Reinhart was so interested in destroying you."

Cole nodded.

"Reinhart, you realize, believes that the failure of the SRB machines is the chief danger to the war effort. But that is nothing!" Sherikov pushed his plate away noisily, draining his coffee mug. "After all, wars *can* be fought without statistical forecasts. The SRB machines only describe. They're nothing more than mechanical onlookers. In themselves, they don't affect the course of the war. *We* make the war. They only analyze."

Cole nodded.

"More coffee?" Sherikov asked. He pushed the plastic container toward Cole. "Have some."

Cole accepted another cupful. "Thank you."

"You can see that our real problem is another thing entirely. The machines only do figuring for us in a few minutes that eventually we could do for our own selves. They're our servants, tools. Not some sort of gods in a temple which we go and pray to. Not oracles who can see into the future for us. They don't see into the future. They only make statistical predictions—not prophecies. There's a big difference there, but Reinhart doesn't understand it. Reinhart and his kind have made such things as the SRB machines into gods. But I have no gods. At least, not any I can see."

Cole nodded, sipping his coffee.

"I'm telling you all these things because you must understand what we're up against. Terra is hemmed in on all sides by the ancient Centauran Empire. It's been out there for centuries, thousands of years. No one knows how long. It's old—crumbling and rotting. Corrupt and venal. But it holds most of the galaxy around us, and we can't break out of the Sol system. I told you about Icarus, and Hedge's work in ftl flight. We must win the war against Centaurus. We've waited and worked a long time for this, the moment when we can break out and get room among the stars for ourselves. Icarus is the deciding weapon. The data

on Icarus tipped the SRB odds in our favor—for the first time in history. Success in the war against Centaurus will depend on Icarus, not on the SRB machines. You see?"

Cole nodded.

"However, there is a problem. The data on Icarus which I turned over to the machines specified that Icarus would be completed in ten days. More than half that time has already passed. Yet, we are no closer to wiring up the control turret than we were then. The turret baffles us." Sherikov grinned ironically. "Even *I* have tried my hand at the wiring, but with no success. It's intricate—and small. Too many technical bugs not worked out. We are building only one, you understand. If we had many experimental models worked out before—"

"But this is the experimental model," Cole said.

"And built from the designs of a man dead four years—who isn't here to correct us. We've made Icarus with our own hands, down here in the labs. And he's giving us plenty of trouble." All at once Sherikov got to his feet. "Let's go down to the lab and look at him."

They descended to the floor below, Sherikov leading the way. Cole stopped short at the lab door.

"Quite a sight," Sherikov agreed. "We keep him down here at the bottom for safety's sake. He's well protected. Come on in. We have work to do."

In the center of the lab Icarus rose up, the gray squat cylinder that someday would flash through space at a speed of thousands of times that of light, toward the heart of Proxima Centaurus, over four light years away. Around the cylinder groups of men in uniform were laboring feverishly to finish the remaining work.

"Over here. The turret." Sherikov led Cole over to one side of the room. "It's guarded. Centauran spies are swarming everywhere on Terra. They see into everything. But so do we. That's how we get information for the SRB machines. Spies in both systems."

The translucent globe that was the control turret reposed in the center of a metal stand, an armed guard standing at each side. They lowered their guns as Sherikov approached.

"We don't want anything to happen to this," Sherikov said. "Everything depends on it." He put out his hand for the globe. Half way to it his hand stopped, striking against an invisible presence in the air.

Sherikov laughed. "The wall. Shut it off. It's still on."

One of the guards pressed a stud at his wrist. Around the globe the air shimmered and faded.

"Now." Sherikov's hand closed over the globe. He lifted it carefully from its mount and brought it out for Cole to see. "This is the control turret for our enormous friend here. This is what will slow him down when he's inside Centaurus. He slows down and re-enters this universe. Right in the heart of the star. Then—no more Centaurus." Sherikov beamed. "And no more Armun."

But Cole was not listening. He had taken the globe from Sherikov and was turning it over and over, running his hands over it, his face close to its surface. He peered down into its interior, his face rapt and intent.

"You can't see the wiring. Not without lenses." Sherikov signalled for a pair of micro-lenses to be brought. He fitted them on Cole's nose, hooking them behind his ears. "Now try it. You can control the magnification. It's set for 1000X right now. You can increase or decrease it."

Cole gasped, swaying back and forth. Sherikov caught hold of him. Cole gazed down into the globe, moving his head slightly, focussing the glasses.

"It takes practice. But you can do a lot with them. Permits you to do microscopic wiring. There are tools to go along, you understand." Sherikov paused, licking his lip. "We can't get it done correctly. Only a few men can wire circuits using the micro-lenses and the little tools. We've tried robots, but there are too many decisions to be made. Robots can't make decisions. They just react."

Cole said nothing. He continued to gaze into the interior of the globe, his lips tight, his body taut and rigid. It made Sherikov feel strangely uneasy.

"You look like one of those old fortune tellers," Sherikov said jokingly, but a cold shiver crawled up his spine. "Better hand it back to me." He held out his hand.

Slowly, Cole returned the globe. After a time he removed the micro-lenses, still deep in thought.

"Well?" Sherikov demanded. "You know what I want. I want you to wire this damn thing up." Sherikov came close to Cole, his big face hard. "You can do it, I think. I could tell by the way you held it—and the job you did on the children's toy, of course. You could wire it up right, and in five days. Nobody

else can. And if it's not wired up Centaurus will keep on running the galaxy and Terra will have to sweat it out here in the Sol system. One tiny mediocre sun, one dust mote out of a whole galaxy."

Cole did not answer.

Sherikov became impatient. "Well? What do you say?"

"What happens if I don't wire this control for you? I mean, what happens to *me?*"

"Then I turn you over to Reinhart. Reinhart will kill you instantly. He thinks you're dead, killed when the Albertine Range was annihilated. If he had any idea I had saved you—"

"I see."

"I brought you down here for one thing. If you wire it up I'll have you sent back to your own time continuum. If you don't—"

Cole considered, his face dark and brooding.

"What do you have to lose? You'd already be dead, if we hadn't pulled you out of those hills."

"Can you really return me to my own time?"

"Of course!"

"Reinhart won't interfere?"

Sherikov laughed. "What can he do? How can he stop me? I have my own men. You saw them. They landed all around you. You'll be returned."

"Yes. I saw your men."

"Then you agree?"

"I agree," Thomas Cole said. "I'll wire it for you. I'll complete the control turret—within the next five days."

IV

Three days later Joseph Dixon slid a closed-circuit message plate across the desk to his boss.

"Here. You might be interested in this."

Reinhart picked the plate up slowly. "What is it? You came all the way here to show me this?"

"That's right."

"Why didn't you vidscreen it?"

Dixon smiled grimly. "You'll understand when you decode it. It's from

Proxima Centaurus."

"Centaurus!"

"Our counter-intelligence service. They sent it direct to me. Here, I'll decode it for you. Save you the trouble."

Dixon came around behind Reinhart's desk. He leaned over the Commissioner's shoulder, taking hold of the plate and breaking the seal with his thumb nail.

"Hang on," Dixon said. "This is going to hit you hard. According to our agents on Armun, the Centauran High Council has called an emergency session to deal with the problem of Terra's impending attack. Centauran relay couriers have reported to the High Council that the Terran bomb Icarus is virtually complete. Work on the bomb has been rushed through final stages in the underground laboratories under the Ural Range, directed by the Terran physicist Peter Sherikov."

"So I understand from Sherikov himself. Are you surprised the Centaurans know about the bomb? They have spies swarming over Terra. That's no news."

"There's more." Dixon traced the message plate grimly, with an unsteady finger. "The Centauran relay couriers reported that Peter Sherikov brought an expert mechanic out of a previous time continuum to complete the wiring of the turret!"

Reinhart staggered, holding on tight to the desk. He closed his eyes, gasping.

"The variable man is still alive," Dixon murmured. "I don't know how. Or why. There's nothing left of the Albertines. And how the hell did the man get half way around the world?"

Reinhart opened his eyes slowly, his face twisting. "Sherikov! He must have removed him before the attack. I told Sherikov the attack was forthcoming. I gave him the exact hour. He had to get help—from the variable man. He couldn't meet his promise otherwise."

Reinhart leaped up and began to pace back and forth. "I've already informed the SRB machines that the variable man has been destroyed. The machines now show the original 7-6 ratio in our favor. But the ratio is based on false information."

"Then you'll have to withdraw the false data and restore the original

situation."

"No." Reinhart shook his head. "I can't do that. The machines must be kept functioning. We can't allow them to jam again. It's too dangerous. If Duffe should become aware that—"

"What are you going to do, then?" Dixon picked up the message plate. "You can't leave the machines with false data. That's treason."

"The data can't be withdrawn! Not unless equivalent data exists to take its place." Reinhart paced angrily back and forth. "Damn it, I was *certain* the man was dead. This is an incredible situation. He must be eliminated—at any cost."

Suddenly Reinhart stopped pacing. "The turret. It's probably finished by this time. Correct?"

Dixon nodded slowly in agreement. "With the variable man helping, Sherikov has undoubtedly completed work well ahead of schedule."

Reinhart's gray eyes flickered. "Then he's no longer of any use—even to Sherikov. We could take a chance…. Even if there were active opposition…."

"What's this?" Dixon demanded. "What are you thinking about?"

"How many units are ready for immediate action? How large a force can we raise without notice?"

"Because of the war we're mobilized on a twenty-four hour basis. There are seventy air units and about two hundred surface units. The balance of the Security forces have been transferred to the line, under military control."

"Men?"

"We have about five thousand men ready to go, still on Terra. Most of them in the process of being transferred to military transports. I can hold it up at any time."

"Missiles?"

"Fortunately, the launching tubes have not yet been disassembled. They're still here on Terra. In another few days they'll be moving out for the Colonial fracas."

"Then they're available for immediate use?"

"Yes."

"Good." Reinhart locked his hands, knotting his fingers harshly together in sudden decision. "That will do exactly. Unless I am completely wrong, Sherikov has only a half-dozen air units and no surface cars. And only about two hundred

men. Some defense shields, of course—"

"What are you planning?"

Reinhart's face was gray and hard, like stone. "Send out orders for all available Security units to be unified under your immediate command. Have them ready to move by four o'clock this afternoon. We're going to pay a visit," Reinhart stated grimly. "A surprise visit. On Peter Sherikov."

"Stop here," Reinhart ordered.

The surface car slowed to a halt. Reinhart peered cautiously out, studying the horizon ahead.

On all sides a desert of scrub grass and sand stretched out. Nothing moved or stirred. To the right the grass and sand rose up to form immense peaks, a range of mountains without end, disappearing finally into the distance. The Urals.

"Over there," Reinhart said to Dixon, pointing. "See?"

"No."

"Look hard. It's difficult to spot unless you know what to look for. Vertical pipes. Some kind of vent. Or periscopes."

Dixon saw them finally. "I would have driven past without noticing."

"It's well concealed. The main labs are a mile down. Under the range itself. It's virtually impregnable. Sherikov had it built years ago, to withstand any attack. From the air, by surface cars, bombs, missiles—"

"He must feel safe down there."

"No doubt." Reinhart gazed up at the sky. A few faint black dots could be seen, moving lazily about, in broad circles. "Those aren't ours, are they? I gave orders—"

"No. They're not ours. All our units are out of sight. Those belong to Sherikov. His patrol."

Reinhart relaxed. "Good." He reached over and flicked on the vidscreen over the board of the car. "This screen is shielded? It can't be traced?"

"There's no way they can spot it back to us. It's non-directional."

The screen glowed into life. Reinhart punched the combination keys and sat back to wait.

After a time an image formed on the screen. A heavy face, bushy black beard and large eyes.

Peter Sherikov gazed at Reinhart with surprised curiosity. "Commissioner! Where are you calling from? What—"

"How's the work progressing?" Reinhart broke in coldly. "Is Icarus almost complete?"

Sherikov beamed with expansive pride. "He's done, Commissioner. Two days ahead of time. Icarus is ready to be launched into space. I tried to call your office, but they told me—"

"I'm not at my office." Reinhart leaned toward the screen. "Open your entrance tunnel at the surface. You're about to receive visitors."

Sherikov blinked. "Visitors?"

"I'm coming down to see you. About Icarus. Have the tunnel opened for me at once."

"Exactly where are you, Commissioner?"

"On the surface."

Sherikov's eyes flickered. "Oh? But—"

"Open up!" Reinhart snapped. He glanced at his wristwatch. "I'll be at the entrance in five minutes. I expect to find it ready for me."

"Of course." Sherikov nodded in bewilderment. "I'm always glad to see you, Commissioner. But I—"

"Five minutes, then." Reinhart cut the circuit. The screen died. He turned quickly to Dixon. "You stay up here, as we arranged. I'll go down with one company of police. You understand the necessity of exact timing on this?"

"We won't slip up. Everything's ready. All units are in their places."

"Good." Reinhart pushed the door open for him. "You join your directional staff. I'll proceed toward the tunnel entrance."

"Good luck." Dixon leaped out of the car, onto the sandy ground. A gust of dry air swirled into the car around Reinhart. "I'll see you later."

Reinhart slammed the door. He turned to the group of police crouched in the rear of the car, their guns held tightly. "Here we go," Reinhart murmured. "Hold on."

The car raced across the sandy ground, toward the tunnel entrance to Sherikov's underground fortress.

Sherikov met Reinhart at the bottom end of the tunnel, where the tunnel opened up onto the main floor of the lab.

The big Pole approached, his hand out, beaming with pride and satisfaction. "It's a pleasure to see you, Commissioner. This is an historic moment."

Reinhart got out of the car, with his group of armed Security police. "Calls for a celebration, doesn't it?" he said.

"That's a good idea! We're two days ahead, Commissioner. The SRB machines will be interested. The odds should change abruptly at the news."

"Let's go down to the lab. I want to see the control turret myself."

A shadow crossed Sherikov's face. "I'd rather not bother the workmen right now, Commissioner. They've been under a great load, trying to complete the turret in time. I believe they're putting a few last finishes on it at this moment."

"We can view them by vidscreen. I'm curious to see them at work. It must be difficult to wire such minute relays."

Sherikov shook his head. "Sorry, Commissioner. No vidscreen on them. I won't allow it. This is too important. Our whole future depends on it."

Reinhart snapped a signal to his company of police. "Put this man under arrest."

Sherikov blanched. His mouth fell open. The police moved quickly around him, their gun tubes up, jabbing into him. He was searched rapidly, efficiently. His gun belt and concealed energy screen were yanked off.

"What's going on?" Sherikov demanded, some color returning to his face. "What are you doing?"

"You're under arrest for the duration of the war. You're relieved of all authority. From now on one of my men will operate Designs. When the war is over you'll be tried before the Council and President Duffe."

Sherikov shook his head, dazed. "I don't understand. What's this all about? Explain it to me, Commissioner. What's happened?"

Reinhart signalled to his police. "Get ready. We're going into the lab. We may have to shoot our way in. The variable man should be in the area of the bomb, working on the control turret."

Instantly Sherikov's face hardened. His black eyes glittered, alert and hostile.

Reinhart laughed harshly. "We received a counter-intelligence report from Centaurus. I'm surprised at you, Sherikov. You know the Centaurans are everywhere with their relay couriers. You should have known—"

Sherikov moved. Fast. All at once he broke away from the police, throwing his massive body against them. They fell, scattering. Sherikov ran—directly at the wall. The police fired wildly. Reinhart fumbled frantically for his gun tube, pulling it up.

Sherikov reached the wall, running head down, energy beams flashing around him. He struck against the wall—and vanished.

"Down!" Reinhart shouted. He dropped to his hands and knees. All around him his police dived for the floor. Reinhart cursed wildly, dragging himself quickly toward the door. They had to get out, and right away. Sherikov had escaped. A false wall, an energy barrier set to respond to his pressure. He had dashed through it to safety. He—

From all sides an inferno burst, a flaming roar of death surging over them, around them, on every side. The room was alive with blazing masses of destruction, bouncing from wall to wall. They were caught between four banks of power, all of them open to full discharge. A trap—a death trap.

Reinhart reached the hall gasping for breath. He leaped to his feet. A few Security police followed him. Behind them, in the flaming room, the rest of the company screamed and struggled, blasted out of existence by the leaping bursts of power.

Reinhart assembled his remaining men. Already, Sherikov's guards were forming. At one end of the corridor a snub-barreled robot gun was maneuvering into position. A siren wailed. Guards were running on all sides, hurrying to battle stations.

The robot gun opened fire. Part of the corridor exploded, bursting into fragments. Clouds of choking debris and particles swept around them. Reinhart and his police retreated, moving back along the corridor.

They reached a junction. A second robot gun was rumbling toward them, hurrying to get within range. Reinhart fired carefully, aiming at its delicate control. Abruptly the gun spun convulsively. It lashed against the wall, smashing itself into the unyielding metal. Then it collapsed in a heap, gears still whining and spinning.

"Come on." Reinhart moved away, crouching and running. He glanced at his watch. *Almost time.* A few more minutes. A group of lab guards appeared ahead of them. Reinhart fired. Behind him his police fired past him, violet

shafts of energy catching the group of guards as they entered the corridor. The guards spilled apart, falling and twisting. Part of them settled into dust, drifting down the corridor. Reinhart made his way toward the lab, crouching and leaping, pushing past heaps of debris and remains, followed by his men. "Come on! Don't stop!"

Suddenly from around them the booming, enlarged voice of Sherikov thundered, magnified by rows of wall speakers along the corridor. Reinhart halted, glancing around.

"Reinhart! You haven't got a chance. You'll never get back to the surface. Throw down your guns and give up. You're surrounded on all sides. You're a mile, under the surface."

Reinhart threw himself into motion, pushing into billowing clouds of particles drifting along the corridor. "Are you sure, Sherikov?" he grunted.

Sherikov laughed, his harsh, metallic peals rolling in waves against Reinhart's eardrums. "I don't want to have to kill you, Commissioner. You're vital to the war: I'm sorry you found out about the variable man. I admit we overlooked the Centauran espionage as a factor in this. But now that you know about him—"

Suddenly Sherikov's voice broke off. A deep rumble had shaken the floor, a lapping vibration that shuddered through the corridor.

Reinhart sagged with relief. He peered through the clouds of debris, making out the figures on his watch. Right on time. Not a second late.

The first of the hydrogen missiles, launched from the Council buildings on the other side of the world, were beginning to arrive. The attack had begun.

At exactly six o'clock Joseph Dixon, standing on the surface four miles from the entrance tunnel, gave the sign to the waiting units.

The first job was to break down Sherikov's defense screens. The missiles had to penetrate without interference. At Dixon's signal a fleet of thirty Security ships dived from a height of ten miles, swooping above the mountains, directly over the underground laboratories. Within five minutes the defense screens had been smashed, and all the tower projectors leveled flat. Now the mountains were virtually unprotected.

"So far so good," Dixon murmured, as he watched from his secure position. The fleet of Security ships roared back, their work done. Across the face of the

desert the police surface cars were crawling rapidly toward the entrance tunnel, snaking from side to side.

Meanwhile, Sherikov's counter-attack had begun to go into operation.

Guns mounted among the hills opened fire. Vast columns of flame burst up in the path of the advancing cars. The cars hesitated and retreated, as the plain was churned up by a howling vortex, a thundering chaos of explosions. Here and there a car vanished in a cloud of particles. A group of cars moving away suddenly scattered, caught up by a giant wind that lashed across them and swept them up into the air.

Dixon gave orders to have the cannon silenced. The police air arm again swept overhead, a sullen roar of jets that shook the ground below. The police ships divided expertly and hurtled down on the cannon protecting the hills.

The cannon forgot the surface cars and lifted their snouts to meet the attack. Again and again the airships came, rocking the mountains with titanic blasts.

The guns became silent. Their echoing boom diminished, died away reluctantly, as bombs took critical toll of them.

Dixon watched with satisfaction as the bombing came to an end. The airships rose in a thick swarm, black gnats shooting up in triumph from a dead carcass. They hurried back as emergency anti-aircraft robot guns swung into position and saturated the sky with blazing puffs of energy.

Dixon checked his wristwatch. The missiles were already on the way from North America. Only a few minutes remained.

The surface cars, freed by the successful bombing, began to regroup for a new frontal attack. Again they crawled forward, across the burning plain, bearing down cautiously on the battered wall of mountains, heading toward the twisted wrecks that had been the ring of defense guns. Toward the entrance tunnel.

An occasional cannon fired feebly at them. The cars came grimly on. Now, in the hollows of the hills, Sherikov's troops were hurrying to the surface to meet the attack. The first car reached the shadow of the mountains….

A deafening hail of fire burst loose. Small robot guns appeared everywhere, needle barrels emerging from behind hidden screens, trees and shrubs, rocks, stones. The police cars were caught in a withering cross-fire, trapped at the base of the hills.

Down the slopes Sherikov's guards raced, toward the stalled cars. Clouds of heat rose up and boiled across the plain as the cars fired up at the running men. A robot gun dropped like a slug onto the plain and screamed toward the cars, firing as it came.

Dixon twisted nervously. Only a few minutes. Any time, now. He shaded his eyes and peered up at the sky. No sign of them yet. He wondered about Reinhart. No signal had come up from below. Clearly, Reinhart had run into trouble. No doubt there was desperate fighting going on in the maze of underground tunnels, the intricate web of passages that honeycombed the earth below the mountains.

In the air, Sherikov's few defense ships were taking on the police raiders. Outnumbered, the defense ships darted rapidly, wildly, putting up a futile fight.

Sherikov's guards streamed out onto the plain. Crouching and running, they advanced toward the stalled cars. The police airships screeched down at them, guns thundering.

Dixon held his breath. When the missiles arrived—

The first missile struck. A section of the mountain vanished, turned to smoke and foaming gasses. The wave of heat slapped Dixon across the face, spinning him around. Quickly he re-entered his ship and took off, shooting rapidly away from the scene. He glanced back. A second and third missile had arrived. Great gaping pits yawned among the mountains, vast sections missing like broken teeth. Now the missiles could penetrate to the underground laboratories below.

On the ground, the surface cars halted beyond the danger area, waiting for the missile attack to finish. When the eighth missile had struck, the cars again moved forward. No more missiles fell.

Dixon swung his ship around, heading back toward the scene. The laboratory was exposed. The top sections of it had been ripped open. The laboratory lay like a tin can, torn apart by mighty explosions, its first floors visible from the air. Men and cars were pouring down into it, fighting with the guards swarming to the surface.

Dixon watched intently. Sherikov's men were bringing up heavy guns, big robot artillery. But the police ships were diving again. Sherikov's defensive patrols had been cleaned from the sky. The police ships whined down, arcing

over the exposed laboratory. Small bombs fell, whistling down, pin-pointing the artillery rising to the surface on the remaining lift stages.

Abruptly Dixon's vidscreen clicked. Dixon turned toward it.

Reinhart's features formed. "Call off the attack." His uniform was torn. A deep bloody gash crossed his cheek. He grinned sourly at Dixon, pushing his tangled hair back out of his face. "Quite a fight."

"Sherikov—"

"He's called off his guards. We've agreed to a truce. It's all over. No more needed." Reinhart gasped for breath, wiping grime and sweat from his neck. "Land your ship and come down here at once."

"The variable man?"

"That comes next," Reinhart said grimly. He adjusted his gun tube. "I want you down here, for that part. I want you to be in on the kill."

Reinhart turned away from the vidscreen. In the corner of the room Sherikov stood silently, saying nothing. "Well?" Reinhart barked. "Where is he? Where will I find him?"

Sherikov licked his lips nervously, glancing up at Reinhart. "Commissioner, are you sure—"

"The attack has been called off. Your labs are safe. So is your life. Now it's your turn to come through." Reinhart gripped his gun, moving toward Sherikov. "*Where is he?*"

For a moment Sherikov hesitated. Then slowly his huge body sagged, defeated. He shook his head wearily. "All right. I'll show you where he is." His voice was hardly audible, a dry whisper. "Down this way. Come on."

Reinhart followed Sherikov out of the room, into the corridor. Police and guards were working rapidly, clearing the debris and ruins away, putting out the hydrogen fires that burned everywhere. "No tricks, Sherikov."

"No tricks." Sherikov nodded resignedly. "Thomas Cole is by himself. In a wing lab off the main rooms."

"Cole?"

"The variable man. That's his name." The Pole turned his massive head a little. "He has a name."

Reinhart waved his gun. "Hurry up. I don't want anything to go wrong. This is the part I came for."

"You must remember something, Commissioner."

"What is it?"

Sherikov stopped walking. "Commissioner, nothing must happen to the globe. The control turret. Everything depends on it, the war, our whole—"

"I know. Nothing will happen to the damn thing. Let's go."

"If it should get damaged—"

"I'm not after the globe. I'm interested only in—in Thomas Cole."

They came to the end of the corridor and stopped before a metal door. Sherikov nodded at the door. "In there."

Reinhart moved back. "Open the door."

"Open it yourself. I don't want to have anything to do with it."

Reinhart shrugged. He stepped up to the door. Holding his gun level he raised his hand, passing it in front of the eye circuit. Nothing happened.

Reinhart frowned. He pushed the door with his hand. The door slid open. Reinhart was looking into a small laboratory. He glimpsed a workbench, tools, heaps of equipment, measuring devices, and in the center of the bench the transparent globe, the control turret.

"Cole?" Reinhart advanced quickly into the room. He glanced around him, suddenly alarmed. "Where—"

The room was empty. Thomas Cole was gone.

When the first missile struck, Cole stopped work and sat listening.

Far off, a distant rumble rolled through the earth, shaking the floor under him. On the bench, tools and equipment danced up and down. A pair of pliers fell crashing to the floor. A box of screws tipped over, spilling its minute contents out.

Cole listened for a time. Presently he lifted the transparent globe from the bench. With carefully controlled hands he held the globe up, running his fingers gently over the surface, his faded blue eyes thoughtful. Then, after a time, he placed the globe back on the bench, in its mount.

The globe was finished. A faint glow of pride moved through the variable man. The globe was the finest job he had ever done.

The deep rumblings ceased. Cole became instantly alert. He jumped down from his stool, hurrying across the room to the door. For a moment he stood by the door listening intently. He could hear noise on the other side, shouts, guards

rushing past, dragging heavy equipment, working frantically.

A rolling crash echoed down the corridor and lapped against his door. The concussion spun him around. Again a tide of energy shook the walls and floor and sent him down on his knees.

The lights flickered and winked out.

Cole fumbled in the dark until he found a flashlight. Power failure. He could hear crackling flames. Abruptly the lights came on again, an ugly yellow, then faded back out. Cole bent down and examined the door with his flashlight. A magnetic lock. Dependent on an externally induced electric flux. He grabbed a screwdriver and pried at the door. For a moment it held. Then it fell open.

Cole stepped warily out into the corridor. Everything was in shambles. Guards wandered everywhere, burned and half-blinded. Two lay groaning under a pile of wrecked equipment. Fused guns, reeking metal. The air was heavy with the smell of burning wiring and plastic. A thick cloud that choked him and made him bend double as he advanced.

"Halt," a guard gasped feebly, struggling to rise. Cole pushed past him and down the corridor. Two small robot guns, still functioning, glided past him hurriedly toward the drumming chaos of battle. He followed.

At a major intersection the fight was in full swing. Sherikov's guards fought Security police, crouched behind pillars and barricades, firing wildly, desperately. Again the whole structure shuddered as a great booming blast ignited some place above. Bombs? Shells?

Cole threw himself down as a violet beam cut past his ear and disintegrated the wall behind him. A Security policeman, wild-eyed, firing erratically. One of Sherikov's guards winged him and his gun skidded to the floor.

A robot cannon turned toward him as he made his way past the intersection. He began to run. The cannon rolled along behind him, aiming itself uncertainly. Cole hunched over as he shambled rapidly along, gasping for breath. In the flickering yellow light he saw a handful of Security police advancing, firing expertly, intent on a line of defense Sherikov's guards had hastily set up.

The robot cannon altered its course to take them on, and Cole escaped around a corner.

He was in the main lab, the big chamber where Icarus himself rose, the vast squat column.

Icarus! A solid wall of guards surrounded him, grim-faced, hugging guns and protection shields. But the Security police were leaving Icarus alone. Nobody wanted to damage him. Cole evaded a lone guard tracking him and reached the far side of the lab.

It took him only a few seconds to find the force field generator. There was no switch. For a moment that puzzled him—and then he remembered. The guard had controlled it from his wrist.

Too late to worry about that. With his screwdriver he unfastened the plate over the generator and ripped out the wiring in handfuls. The generator came loose and he dragged it away from the wall. The screen was off, thank God. He managed to carry the generator into a side corridor.

Crouched in a heap, Cole bent over the generator, deft fingers flying. He pulled the wiring to him and laid it out on the floor, tracing the circuits with feverish haste.

The adaptation was easier than he had expected. The screen flowed at right angles to the wiring, for a distance of six feet. Each lead was shielded on one side; the field radiated outward, leaving a hollow cone in the center. He ran the wiring through his belt, down his trouser legs, under his shirt, all the way to his wrists and ankles.

He was just snatching up the heavy generator when two Security police appeared. They raised their blasters and fired point-blank.

Cole clicked on the screen. A vibration leaped through him that snapped his jaw and danced up his body. He staggered away, half-stupefied by the surging force that radiated out from him. The violet rays struck the field and deflected harmlessly.

He was safe.

He hurried on down the corridor, past a ruined gun and sprawled bodies still clutching blasters. Great drifting clouds of radioactive particles billowed around him. He edged by one cloud nervously. Guards lay everywhere, dying and dead, partly destroyed, eaten and corroded by the hot metallic salts in the air. He had to get out—and fast.

At the end of the corridor a whole section of the fortress was in ruins. Towering flames leaped on all sides. One of the missiles had penetrated below ground level.

Cole found a lift that still functioned. A load of wounded guards was being raised to the surface. None of them paid any attention to him. Flames surged around the lift, licking at the wounded. Workmen were desperately trying to get the lift into action. Cole leaped onto the lift. A moment later it began to rise, leaving the shouts and the flames behind.

The lift emerged on the surface and Cole jumped off. A guard spotted him and gave chase. Crouching, Cole dodged into a tangled mass of twisted metal, still white-hot and smoking. He ran for a distance, leaping from the side of a ruined defense-screen tower, onto the fused ground and down the side of a hill. The ground was hot underfoot. He hurried as fast as he could, gasping for breath. He came to a long slope and scrambled up the side.

The guard who had followed was gone, lost behind in the rolling clouds of ash that drifted from the ruins of Sherikov's underground fortress.

Cole reached the top of the hill. For a brief moment he halted to get his breath and figure where he was. It was almost evening. The sun was beginning to set. In the darkening sky a few dots still twisted and rolled, black specks that abruptly burst into flame and fused out again.

Cole stood up cautiously, peering around him. Ruins stretched out below, on all sides, the furnace from which he had escaped. A chaos of incandescent metal and debris, gutted and wrecked beyond repair. Miles of tangled rubbish and half-vaporized equipment.

He considered. Everyone was busy putting out the fires and pulling the wounded to safety. It would be awhile before he was missed. But as soon as they realized he was gone they'd be after him. Most of the laboratory had been destroyed. Nothing lay back that way.

Beyond the ruins lay the great Ural peaks, the endless mountains, stretching out as far as the eye could see.

Mountains and green forests. A wilderness. They'd never find him there.

Cole started along the side of the hill, walking slowly and carefully, his screen generator under his arm. Probably in the confusion he could find enough food and equipment to last him indefinitely. He could wait until early morning, then circle back toward the ruins and load up. With a few tools and his own innate skill he would get along fine. A screwdriver, hammer, nails, odds and ends—

A great hum sounded in his ears. It swelled to a deafening roar. Startled, Cole whirled around. A vast shape filled the sky behind him, growing each moment. Cole stood frozen, utterly transfixed. The shape thundered over him, above his head, as he stood stupidly, rooted to the spot.

Then, awkwardly, uncertainly, he began to run. He stumbled and fell and rolled a short distance down the side of the hill. Desperately, he struggled to hold onto the ground. His hands dug wildly, futilely, into the soft soil, trying to keep the generator under his arm at the same time.

A flash, and a blinding spark of light around him.

The spark picked him up and tossed him like a dry leaf. He grunted in agony as searing fire crackled about him, a blazing inferno that gnawed and ate hungrily through his screen. He spun dizzily and fell through the cloud of fire, down into a pit of darkness, a vast gulf between two hills. His wiring ripped off. The generator tore out of his grip and was lost behind. Abruptly, his force field ceased.

Cole lay in the darkness at the bottom of the hill. His whole body shrieked in agony as the unholy fire played over him. He was a blazing cinder, a half-consumed ash flaming in a universe of darkness. The pain made him twist and crawl like an insect, trying to burrow into the ground. He screamed and shrieked and struggled to escape, to get away from the hideous fire. To reach the curtain of darkness beyond, where it was cool and silent, where the flames couldn't crackle and eat at him.

He reached imploringly out, into the darkness, groping feebly toward it, trying to pull himself into it. Gradually, the glowing orb that was his own body faded. The impenetrable chaos of night descended. He allowed the tide to sweep over him, to extinguish the searing fire.

Dixon landed his ship expertly, bringing it to a halt in front of an overturned defense tower. He leaped out and hurried across the smoking ground.

From a lift Reinhart appeared, surrounded by his Security police. "He got away from us! He escaped!"

"He didn't escape," Dixon answered. "I got him myself."

Reinhart quivered violently. "What do you mean?"

"Come along with me. Over in this direction." He and Reinhart climbed the side of a demolished hill, both of them panting for breath. "I was landing. I saw

a figure emerge from a lift and run toward the mountains, like some sort of animal. When he came out in the open I dived on him and released a phosphorus bomb."

"Then he's—*dead?*"

"I don't see how anyone could have lived through a phosphorus bomb." They reached the top of the hill. Dixon halted, then pointed excitedly down into the pit beyond the hill. "There!"

They descended cautiously. The ground was singed and burned clean. Clouds of smoke hung heavily in the air. Occasional fires still flickered here and there. Reinhart coughed and bent over to see. Dixon flashed on a pocket flare and set it beside the body.

The body was charred, half destroyed by the burning phosphorus. It lay motionless, one arm over its face, mouth open, legs sprawled grotesquely. Like some abandoned rag doll, tossed in an incinerator and consumed almost beyond recognition.

"He's alive!" Dixon muttered. He felt around curiously. "Must have had some kind of protection screen. Amazing that a man could—"

"It's him? It's really him?"

"Fits the description." Dixon tore away a handful of burned clothing. "This is the variable man. What's left of him, at least."

Reinhart sagged with relief. "Then we've finally got him. The data is accurate. He's no longer a factor."

Dixon got out his blaster and released the safety catch thoughtfully. "If you want, I can finish the job right now."

At that moment Sherikov appeared, accompanied by two armed Security police. He strode grimly down the hillside, black eyes snapping. "Did Cole—" He broke off. "Good God."

"Dixon got him with a phosphorus bomb," Reinhart said noncommittally. "He had reached the surface and was trying to get into the mountains."

Sherikov turned wearily away. "He was an amazing person. During the attack he managed to force the lock on his door and escape. The guards fired at him, but nothing happened. He had rigged up some kind of force field around him. Something he adapted."

"Anyhow, it's over with," Reinhart answered. "Did you have SRB plates

made up on him?"

Sherikov reached slowly into his coat. He drew out a manila envelope. "Here's all the information I collected about him, while he was with me."

"Is it complete? Everything previous has been merely fragmentary."

"As near complete as I could make it. It includes photographs and diagrams of the interior of the globe. The turret wiring he did for me. I haven't had a chance even to look at them." Sherikov fingered the envelope. "What are you going to do with Cole?"

"Have him loaded up, taken back to the city—and officially put to sleep by the Euthanasia Ministry."

"Legal murder?" Sherikov's lips twisted. "Why don't you simply do it right here and get it over with?"

Reinhart grabbed the envelope and stuck it in his pocket. "I'll turn this right over to the machines." He motioned to Dixon. "Let's go. Now we can notify the fleet to prepare for the attack on Centaurus." He turned briefly back to Sherikov. "When can Icarus be launched?"

"In an hour or so, I suppose. They're locking the control turret in place. Assuming it functions correctly, that's all that's needed."

"Good. I'll notify Duffe to send out the signal to the warfleet." Reinhart nodded to the police to take Sherikov to the waiting Security ship. Sherikov moved off dully, his face gray and haggard. Cole's inert body was picked up and tossed onto a freight cart. The cart rumbled into the hold of the Security ship and the lock slid shut after it.

"It'll be interesting to see how the machines respond to the additional data," Dixon said.

"It should make quite an improvement in the odds," Reinhart agreed. He patted the envelope, bulging in his inside pocket. "We're two days ahead of time."

Margaret Duffe got up slowly from her desk. She pushed her chair automatically back. "Let me get all this straight. You mean the bomb is finished? Ready to go?"

Reinhart nodded impatiently. "That's what I said. The Technicians are checking the turret locks to make sure it's properly attached. The launching will take place in half an hour."

"Thirty minutes! Then—"

"Then the attack can begin at once. I assume the fleet is ready for action."

"Of course. It's been ready for several days. But I can't believe the bomb is ready so soon." Margaret Duffe moved numbly toward the door of her office. "This is a great day, Commissioner. An old era lies behind us. This time tomorrow Centaurus will be gone. And eventually the colonies will be ours."

"It's been a long climb," Reinhart murmured.

"One thing. Your charge against Sherikov. It seems incredible that a person of his caliber could ever—"

"We'll discuss that later," Reinhart interrupted coldly. He pulled the manila envelope from his coat. "I haven't had an opportunity to feed the additional data to the SRB machines. If you'll excuse me, I'll do that now."

For a moment Margaret Duffe stood at the door. The two of them faced each other silently, neither speaking, a faint smile on Reinhart's thin lips, hostility in the woman's blue eyes.

"Reinhart, sometimes I think perhaps you'll go too far. And sometimes I think you've *already* gone too far…."

"I'll inform you of any change in the odds showing." Reinhart strode past her, out of the office and down the hall. He headed toward the SRB room, an intense thalamic excitement rising up inside him.

A few moments later he entered the SRB room. He made his way to the machines. The odds 7-6 showed in the view windows. Reinhart smiled a little. 7-6. False odds, based on incorrect information. Now they could be removed.

Kaplan hurried over. Reinhart handed him the envelope, and moved over to the window, gazing down at the scene below. Men and cars scurried frantically everywhere. Officials coming and going like ants, hurrying in all directions.

The war was on. The signal had been sent out to the warfleet that had waited so long near Proxima Centaurus. A feeling of triumph raced through Reinhart. He had won. He had destroyed the man from the past and broken Peter Sherikov. The war had begun as planned. Terra was breaking out. Reinhart smiled thinly. He had been completely successful.

"Commissioner."

Reinhart turned slowly. "All right."

Kaplan was standing in front of the machines, gazing down at the reading.

"Commissioner—"

Sudden alarm plucked at Reinhart. There was something in Kaplan's voice. He hurried quickly over. "What is it?"

Kaplan looked up at him, his face white, his eyes wide with terror. His mouth opened and closed, but no sound came.

"*What is it?*" Reinhart demanded, chilled. He bent toward the machines, studying the reading.

And sickened with horror.

100-1. *Against* Terra!

He could not tear his gaze away from the figures. He was numb, shocked with disbelief. 100-1. *What had happened?* What had gone wrong? The turret was finished, Icarus was ready, the fleet had been notified—

There was a sudden deep buzz from outside the building. Shouts drifted up from below. Reinhart turned his head slowly toward the window, his heart frozen with fear.

Across the evening sky a trail moved, rising each moment. A thin line of white. Something climbed, gaining speed each moment. On the ground, all eyes were turned toward it, awed faces peering up.

The object gained speed. Faster and faster. Then it vanished. Icarus was on his way. The attack had begun; it was too late to stop, now.

And on the machines the odds read a hundred to one—for failure.

At eight o'clock in the evening of May 15, 2136, Icarus was launched toward the star Centaurus. A day later, while all Terra waited, Icarus entered the star, traveling at thousands of times the speed of light.

Nothing happened. Icarus disappeared into the star. There was no explosion. The bomb failed to go off.

At the same time the Terran warfleet engaged the Centauran outer fleet, sweeping down in a concentrated attack. Twenty major ships were seized. A good part of the Centauran fleet was destroyed. Many of the captive systems began to revolt, in the hope of throwing off the Imperial bonds.

Two hours later the massed Centauran warfleet from Armun abruptly appeared and joined battle. The great struggle illuminated half the Centauran system. Ship after ship flashed briefly and then faded to ash. For a whole day the two fleets fought, strung out over millions of miles of space. Innumerable

fighting men died—on both sides.

At last the remains of the battered Terran fleet turned and limped toward Armun—defeated. Little of the once impressive armada remained. A few blackened hulks, making their way uncertainly toward captivity.

Icarus had not functioned. Centaurus had not exploded. The attack was a failure.

The war was over.

"We've lost the war," Margaret Duffe said in a small voice, wondering and awed. "It's over. Finished."

The Council members sat in their places around the conference table, gray-haired elderly men, none of them speaking or moving. All gazed up mutely at the great stellar maps that covered two walls of the chamber.

"I have already empowered negotiators to arrange a truce," Margaret Duffe murmured. "Orders have been sent out to Vice-Commander Jessup to give up the battle. There's no hope. Fleet Commander Carleton destroyed himself and his flagship a few minutes ago. The Centauran High Council has agreed to end the fighting. Their whole Empire is rotten to the core. Ready to topple of its own weight."

Reinhart was slumped over at the table, his head in his hands. "I don't understand…. *Why?* Why didn't the bomb explode?" He mopped his forehead shakily. All his poise was gone. He was trembling and broken. "*What went wrong?*"

Gray-faced, Dixon mumbled an answer. "The variable man must have sabotaged the turret. The SRB machines knew…. They analyzed the data. *They knew!* But it was too late."

Reinhart's eyes were bleak with despair as he raised his head a little. "I knew he'd destroy us. We're finished. A century of work and planning." His body knotted in a spasm of furious agony. "All because of Sherikov!"

Margaret Duffe eyed Reinhart coldly. "Why because of Sherikov?"

"He kept Cole alive! I wanted him killed from the start." Suddenly Reinhart jumped from his chair. His hand clutched convulsively at his gun. "And he's *still* alive! Even if we've lost I'm going to have the pleasure of putting a blast beam through Cole's chest!"

"Sit down!" Margaret Duffe ordered.

Reinhart was half way to the door. "He's still at the Euthanasia Ministry, waiting for the official—"

"No, he's not," Margaret Duffe said.

Reinhart froze. He turned slowly, as if unable to believe his senses. "*What?*"

"Cole isn't at the Ministry. I ordered him transferred and your instructions cancelled."

"Where—where is he?"

There was unusual hardness in Margaret Duffe's voice as she answered. "With Peter Sherikov. In the Urals. I had Sherikov's full authority restored. I then had Cole transferred there, put in Sherikov's safe keeping. I want to make sure Cole recovers, so we can keep our promise to him—our promise to return him to his own time."

Reinhart's mouth opened and closed. All the color had drained from his face. His cheek muscles twitched spasmodically. At last he managed to speak. "You've gone insane! The traitor responsible for Earth's greatest defeat—"

"We have lost the war," Margaret Duffe stated quietly. "But this is not a day of defeat. It is a day of victory. The most incredible victory Terra has ever had."

Reinhart and Dixon were dumbfounded. "What—" Reinhart gasped. "What do you—" The whole room was in an uproar. All the Council members were on their feet. Reinhart's words were drowned out.

"Sherikov will explain when he gets here," Margaret Duffe's calm voice came. "He's the one who discovered it." She looked around the chamber at the incredulous Council members. "Everyone stay in his seat. You are all to remain here until Sherikov arrives. It's vital you hear what he has to say. His news transforms this whole situation."

Peter Sherikov accepted the briefcase of papers from his armed technician. "Thanks." He pushed his chair back and glanced thoughtfully around the Council chamber. "Is everybody ready to hear what I have to say?"

"We're ready," Margaret Duffe answered. The Council members sat alertly around the table. At the far end, Reinhart and Dixon watched uneasily as the big Pole removed papers from his briefcase and carefully examined them.

"To begin, I recall to you the original work behind the ftl bomb. Jamison Hedge was the first human to propel an object at a speed greater than light. As

you know, that object diminished in length and gained in mass as it moved toward light speed. When it reached that speed it vanished. It ceased to exist in our terms. Having no length it could not occupy space. It rose to a different order of existence.

"When Hedge tried to bring the object back, an explosion occurred. Hedge was killed, and all his equipment was destroyed. The force of the blast was beyond calculation. Hedge had placed his observation ship many millions of miles away. It was not far enough, however. Originally, he had hoped his drive might be used for space travel. But after his death the principle was abandoned.

"That is—until Icarus. I saw the possibilities of a bomb, an incredibly powerful bomb to destroy Centaurus and all the Empire's forces. The reappearance of Icarus would mean the annihilation of their System. As Hedge had shown, the object would re-enter space already occupied by matter, and the cataclysm would be beyond belief."

"But Icarus never came back," Reinhart cried. "Cole altered the wiring so the bomb kept on going. It's probably still going."

"Wrong," Sherikov boomed. "The bomb *did* reappear. But it didn't explode."

Reinhart reacted violently. "You mean—"

"The bomb came back, dropping below the ftl speed as soon as it entered the star Proxima. But it did not explode. There was no cataclysm. It reappeared and was absorbed by the sun, turned into gas at once."

"Why didn't it explode?" Dixon demanded.

"Because Thomas Cole solved Hedge's problem. He found a way to bring the ftl object back into this universe without collision. Without an explosion. The variable man found what Hedge was after…."

The whole Council was on its feet. A growing murmur filled the chamber, a rising pandemonium breaking out on all sides.

"I don't believe it!" Reinhart gasped. "It isn't possible. If Cole solved Hedge's problem that would mean—" He broke off, staggered.

"Faster than light drive can now be used for space travel," Sherikov continued, waving the noise down. "As Hedge intended. My men have studied the photographs of the control turret. They don't know *how* or *why*, yet. But we have complete records of the turret. We can duplicate the wiring, as soon as the

laboratories have been repaired."

Comprehension was gradually beginning to settle over the room. "Then it'll be possible to build ftl ships," Margaret Duffe murmured, dazed. "And if we can do that—"

"When I showed him the control turret, Cole understood its purpose. Not *my* purpose, but the original purpose Hedge had been working toward. Cole realized Icarus was actually an incomplete spaceship, not a bomb at all. He saw what Hedge had seen, an ftl space drive. He set out to make Icarus work."

"We can go *beyond* Centaurus," Dixon muttered. His lips twisted. "Then the war was trivial. We can leave the Empire completely behind. We can go beyond the galaxy."

"The whole universe is open to us," Sherikov agreed. "Instead of taking over an antiquated Empire, we have the entire cosmos to map and explore, God's total creation."

Margaret Duffe got to her feet and moved slowly toward the great stellar maps that towered above them at the far end of the chamber. She stood for a long time, gazing up at the myriad suns, the legions of systems, awed by what she saw.

"Do you suppose he realized all this?" she asked suddenly. "What we can see, here on these maps?"

"Thomas Cole is a strange person," Sherikov said, half to himself. "Apparently he has a kind of intuition about machines, the way things are supposed to work. An intuition more in his hands than in his head. A kind of genius, such as a painter or a pianist has. Not a scientist. He has no verbal knowledge about things, no semantic references. He deals with the things themselves. Directly.

"I doubt very much if Thomas Cole understood what would come about. He looked into the globe, the control turret. He saw unfinished wiring and relays. He saw a job half done. An incomplete machine."

"Something to be fixed," Margaret Duffe put in.

"Something to be fixed. Like an artist, he saw his work ahead of him. He was interested in only one thing: turning out the best job he could, with the skill he possessed. For us, that skill has opened up a whole universe, endless galaxies and systems to explore. Worlds without end. Unlimited, *untouched*

worlds."

Reinhart got unsteadily to his feet. "We better get to work. Start organizing construction teams. Exploration crews. We'll have to reconvert from war production to ship designing. Begin the manufacture of mining and scientific instruments for survey work."

"That's right," Margaret Duffe said. She looked reflectively up at him. "But you're not going to have anything to do with it."

Reinhart saw the expression on her face. His hand flew to his gun and he backed quickly toward the door. Dixon leaped up and joined him. "Get back!" Reinhart shouted.

Margaret Duffe signalled and a phalanx of Government troops closed in around the two men. Grim-faced, efficient soldiers with magnetic grapples ready.

Reinhart's blaster wavered—toward the Council members sitting shocked in their seats, and toward Margaret Duffe, straight at her blue eyes. Reinhart's features were distorted with insane fear. "Get back! Don't anybody come near me or she'll be the first to get it!"

Peter Sherikov slid from the table and with one great stride swept his immense bulk in front of Reinhart. His huge black-furred fist rose in a smashing arc. Reinhart sailed against the wall, struck with ringing force and then slid slowly to the floor.

The Government troops threw their grapples quickly around him and jerked him to his feet. His body was frozen rigid. Blood dripped from his mouth. He spat bits of tooth, his eyes glazed over. Dixon stood dazed, mouth open, uncomprehending, as the grapples closed around his arms and legs.

Reinhart's gun skidded to the floor as he was yanked toward the door. One of the elderly Council members picked the gun up and examined it curiously. He laid it carefully on the table. "Fully loaded," he murmured. "Ready to fire."

Reinhart's battered face was dark with hate. "I should have killed all of you. *All* of you!" An ugly sneer twisted across his shredded lips. "If I could get my hands loose—"

"You won't," Margaret Duffe said. "You might as well not even bother to think about it." She signalled to the troops and they pulled Reinhart and Dixon roughly out of the room, two dazed figures, snarling and resentful.

For a moment the room was silent. Then the Council members shuffled nervously in their seats, beginning to breathe again.

Sherikov came over and put his big paw on Margaret Duffe's shoulder. "Are you all right, Margaret?"

She smiled faintly. "I'm fine. Thanks…."

Sherikov touched her soft hair briefly. Then he broke away and began to pack up his briefcase busily. "I have to go. I'll get in touch with you later."

"Where are you going?" she asked hesitantly. "Can't you stay and—"

"I have to get back to the Urals." Sherikov grinned at her over his bushy black beard as he headed out of the room. "Some very important business to attend to."

Thomas Cole was sitting up in bed when Sherikov came to the door. Most of his awkward, hunched-over body was sealed in a thin envelope of transparent airproof plastic. Two robot attendants whirred ceaselessly at his side, their leads contacting his pulse, blood-pressure, respiration, body temperature.

Cole turned a little as the huge Pole tossed down his briefcase and seated himself on the window ledge.

"How are you feeling?" Sherikov asked him.

"Better."

"You see we've quite advanced therapy. Your burns should be healed in a few months."

"How is the war coming?"

"The war is over."

Cole's lips moved. "Icarus—"

"Icarus went as expected. As *you* expected." Sherikov leaned toward the bed. "Cole, I promised you something. I mean to keep my promise—as soon as you're well enough."

"To return me to my own time?"

"That's right. It's a relatively simple matter, now that Reinhart has been removed from power. You'll be back home again, back in your own time, your own world. We can supply you with some discs of platinum or something of the kind to finance your business. You'll need a new Fixit truck. Tools. And clothes. A few thousand dollars ought to do it."

Cole was silent.

"I've already contacted histo-research," Sherikov continued. "The time bubble is ready as soon as you are. We're somewhat beholden to you, as you probably realize. You've made it possible for us to actualize our greatest dream. The whole planet is seething with excitement. We're changing our economy over from war to—"

"They don't resent what happened? The dud must have made an awful lot of people feel downright bad."

"At first. But they got over it—as soon as they understood what was ahead. Too bad you won't be here to see it, Cole. A whole world breaking loose. Bursting out into the universe. They want me to have an ftl ship ready by the end of the week! Thousands of applications are already on file, men and women wanting to get in on the initial flight."

Cole smiled a little, "There won't be any band, there. No parade or welcoming committee waiting for them."

"Maybe not. Maybe the first ship will wind up on some dead world, nothing but sand and dried salt. But everybody wants to go. It's almost like a holiday. People running around and shouting and throwing things in the streets.

"Afraid I must get back to the labs. Lots of reconstruction work being started." Sherikov dug into his bulging briefcase. "By the way…. One little thing. While you're recovering here, you might like to look at these." He tossed a handful of schematics on the bed.

Cole picked them up slowly. "What's this?"

"Just a little thing I designed." Sherikov arose and lumbered toward the door. "We're realigning our political structure to eliminate any recurrence of the Reinhart affair. This will block any more one-man power grabs." He jabbed a thick finger at the schematics. "It'll turn power over to all of us, not to just a limited number one person could dominate—the way Reinhart dominated the Council.

"This gimmick makes it possible for citizens to raise and decide issues directly. They won't have to wait for the Council to verbalize a measure. Any citizen can transmit his will with one of these, make his needs register on a central control that automatically responds. When a large enough segment of the population wants a certain thing done, these little gadgets set up an active field that touches all the others. An issue won't have to go through a formal

Council. The citizens can express their will long before any bunch of gray-haired old men could get around to it."

Sherikov broke off, frowning.

"Of course," he continued slowly, "there's one little detail…."

"What's that?"

"I haven't been able to get a model to function. A few bugs…. Such intricate work never was in my line." He paused at the door. "Well, I hope I'll see you again before you go. Maybe if you feel well enough later on we could get together for one last talk. Maybe have dinner together sometime. Eh?"

But Thomas Cole wasn't listening. He was bent over the schematics, an intense frown on his weathered face. His long fingers moved restlessly over the schematics, tracing wiring and terminals. His lips moved as he calculated.

Sherikov waited a moment. Then he stepped out into the hall and softly closed the door after him.

He whistled merrily as he strode off down the corridor.

IN THE YEAR 2889



By Jules Verne

[Redactor's note: *In the Year 2889* was first published in the *Forum*, February,1889; p. 262. It was published in France the next year. Although published under the name of Jules Verne, it is now believed to be chiefly if not entirely the work of Jules' son, Michel Verne. In any event, many of the topics in the article echo Verne's ideas.]

IN THE YEAR 2889.

Little though they seem to think of it, the people of this twenty-ninth century live continually in fairyland. Surfeited as they are with marvels, they are indifferent in presence of each new marvel. To them all seems natural. Could they but duly appreciate the refinements of civilization in our day; could they but compare the present with the past, and so better comprehend the advance we have made! How much fairer they would find our modern towns, with populations amounting sometimes to 10,000,000 souls; their streets 300 feet wide, their houses 1000 feet in height; with a temperature the same in all seasons; with their lines of aërial locomotion crossing the sky in every direction! If they would but picture to themselves the state of things that once existed, when through muddy streets rumbling boxes on wheels, drawn by horses—yes, by horses!—were the only means of conveyance. Think of the railroads of the olden time, and you will be able to appreciate the pneumatic tubes through which to-day one travels at the rate of 1000 miles an hour. Would not our contemporaries prize the telephone and the telephote more highly if they had not forgotten the telegraph?

Singularly enough, all these transformations rest upon principles which were perfectly familiar to our remote ancestors, but which they disregarded. Heat, for instance, is as ancient as man himself; electricity was known 3000 years ago, and steam 1100 years ago. Nay, so early as ten centuries ago it was known that the differences between the several chemical and physical forces depend on the mode of vibration of the etheric particles, which is for each specifically different. When at last the kinship of all these forces was discovered, it is simply astounding that 500 years should still have to elapse before men could analyze and describe the several modes of vibration that constitute these differences. Above all, it is singular that the mode of reproducing these forces directly from one another, and of reproducing one

without the others, should have remained undiscovered till less than a hundred years ago. Nevertheless, such was the course of events, for it was not till the year 2792 that the famous Oswald Nier made this great discovery.

Truly was he a great benefactor of the human race. His admirable discovery led to many another. Hence is sprung a pleiad of inventors, its brightest star being our great Joseph Jackson. To Jackson we are indebted for those wonderful instruments the new accumulators. Some of these absorb and condense the living force contained in the sun's rays; others, the electricity stored in our globe; others again, the energy coming from whatever source, as a waterfall, a stream, the winds, etc. He, too, it was that invented the transformer, a more wonderful contrivance still, which takes the living force from the accumulator, and, on the simple pressure of a button, gives it back to space in whatever form may be desired, whether as heat, light, electricity, or mechanical force, after having first obtained from it the work required. From the day when these two instruments were contrived is to be dated the era of true progress. They have put into the hands of man a power that is almost infinite. As for their applications, they are numberless. Mitigating the rigors of winter, by giving back to the atmosphere the surplus heat stored up during the summer, they have revolutionized agriculture. By supplying motive power for aërial navigation, they have given to commerce a mighty impetus. To them we are indebted for the continuous production of electricity without batteries or dynamos, of light without combustion or incandescence, and for an unfailing supply of mechanical energy for all the needs of industry.

Yes, all these wonders have been wrought by the accumulator and the transformer. And can we not to them also trace, indirectly, this latest wonder of all, the great "Earth Chronicle" building in 253d Avenue, which was dedicated the other day? If George Washington Smith, the founder of the Manhattan "Chronicle", should come back to life to-day, what would he think were he to be told that this palace of marble and gold belongs to his remote descendant, Fritz Napoleon Smith, who, after thirty generations have come and gone, is owner of the same newspaper which his ancestor established!

For George Washington Smith's newspaper has lived generation after generation, now passing out of the family, anon coming back to it. When, 200 years ago, the political center of the United States was transferred from

Washington to Centropolis, the newspaper followed the government and assumed the name of Earth Chronicle. Unfortunately, it was unable to maintain itself at the high level of its name. Pressed on all sides by rival journals of a more modern type, it was continually in danger of collapse. Twenty years ago its subscription list contained but a few hundred thousand names, and then Mr. Fritz Napoleon Smith bought it for a mere trifle, and originated telephonic journalism.

Every one is familiar with Fritz Napoleon Smith's system—a system made possible by the enormous development of telephony during the last hundred years. Instead of being printed, the Earth Chronicle is every morning spoken to subscribers, who, in interesting conversations with reporters, statesmen, and scientists, learn the news of the day. Furthermore, each subscriber owns a phonograph, and to this instrument he leaves the task of gathering the news whenever he happens not to be in a mood to listen directly himself. As for purchasers of single copies, they can at a very trifling cost learn all that is in the paper of the day at any of the innumerable phonographs set up nearly everywhere.

Fritz Napoleon Smith's innovation galvanized the old newspaper. In the course of a few years the number of subscribers grew to be 80,000,000, and Smith's wealth went on growing, till now it reaches the almost unimaginable figure of $10,000,000,000. This lucky hit has enabled him to erect his new building, a vast edifice with four *façades* each 3,250 feet in length, over which proudly floats the hundred-starred flag of the Union. Thanks to the same lucky hit, he is to-day king of newspaperdom; indeed, he would be king of all the Americans, too, if Americans could ever accept a king. You do not believe it? Well, then, look at the plenipotentiaries of all nations and our own ministers themselves crowding about his door, entreating his counsels, begging for his approbation, imploring the aid of his all-powerful organ. Reckon up the number of scientists and artists that he supports, of inventors that he has under his pay.

Yes, a king is he. And in truth his is a royalty full of burdens. His labors are incessant, and there is no doubt at all that in earlier times any man would have succumbed under the overpowering stress of the toil which Mr. Smith has to perform. Very fortunately for him, thanks to the progress of hygiene, which, abating all the old sources of unhealthfulness, has lifted the mean of human life

from 37 up to 52 years, men have stronger constitutions now than heretofore. The discovery of nutritive air is still in the future, but in the meantime men today consume food that is compounded and prepared according to scientific principles, and they breathe an atmosphere freed from the micro-organisms that formerly used to swarm in it; hence they live longer than their forefathers and know nothing of the innumerable diseases of olden times.

Nevertheless, and notwithstanding these considerations, Fritz Napoleon Smith's mode of life may well astonish one. His iron constitution is taxed to the utmost by the heavy strain that is put upon it. Vain the attempt to estimate the amount of labor he undergoes; an example alone can give an idea of it. Let us then go about with him for one day as he attends to his multifarious concernments. What day? That matters little; it is the same every day. Let us then take at random September 25th of this present year 2889.

This morning Mr. Fritz Napoleon Smith awoke in very bad humor. His wife having left for France eight days ago, he was feeling disconsolate. Incredible though it seems, in all the ten years since their marriage, this is the first time that Mrs. Edith Smith, the professional beauty, has been so long absent from home; two or three days usually suffice for her frequent trips to Europe. The first thing that Mr. Smith does is to connect his phonotelephote, the wires of which communicate with his Paris mansion. The telephote! Here is another of the great triumphs of science in our time. The transmission of speech is an old story; the transmission of images by means of sensitive mirrors connected by wires is a thing but of yesterday. A valuable invention indeed, and Mr. Smith this morning was not niggard of blessings for the inventor, when by its aid he was able distinctly to see his wife notwithstanding the distance that separated him from her. Mrs. Smith, weary after the ball or the visit to the theater the preceding night, is still abed, though it is near noontide at Paris. She is asleep, her head sunk in the lace-covered pillows. What? She stirs? Her lips move. She is dreaming perhaps? Yes, dreaming. She is talking, pronouncing a name his name—Fritz! The delightful vision gave a happier turn to Mr. Smith's thoughts. And now, at the call of imperative duty, light-hearted he springs from his bed and enters his mechanical dresser.

Two minutes later the machine deposited him all dressed at the threshold of his office. The round of journalistic work was now begun. First he enters the

hall of the novel-writers, a vast apartment crowned with an enormous transparent cupola. In one corner is a telephone, through which a hundred Earth Chronicle *littérateurs* in turn recount to the public in daily installments a hundred novels. Addressing one of these authors who was waiting his turn, "Capital! Capital! my dear fellow," said he, "your last story. The scene where the village maid discusses interesting philosophical problems with her lover shows your very acute power of observation. Never have the ways of country folk been better portrayed. Keep on, my dear Archibald, keep on! Since yesterday, thanks to you, there is a gain of 5000 subscribers."

"Mr. John Last," he began again, turning to a new arrival, "I am not so well pleased with your work. Your story is not a picture of life; it lacks the elements of truth. And why? Simply because you run straight on to the end; because you do not analyze. Your heroes do this thing or that from this or that motive, which you assign without ever a thought of dissecting their mental and moral natures. Our feelings, you must remember, are far more complex than all that. In real life every act is the resultant of a hundred thoughts that come and go, and these you must study, each by itself, if you would create a living character. 'But,' you will say, 'in order to note these fleeting thoughts one must know them, must be able to follow them in their capricious meanderings.' Why, any child can do that, as you know. You have simply to make use of hypnotism, electrical or human, which gives one a two-fold being, setting free the witness-personality so that it may see, understand, and remember the reasons which determine the personality that acts. Just study yourself as you live from day to day, my dear Last. Imitate your associate whom I was complimenting a moment ago. Let yourself be hypnotized. What's that? You have tried it already? Not sufficiently, then, not sufficiently!"

Mr. Smith continues his round and enters the reporters' hall. Here 1500 reporters, in their respective places, facing an equal number of telephones, are communicating to the subscribers the news of the world as gathered during the night. The organization of this matchless service has often been described. Besides his telephone, each reporter, as the reader is aware, has in front of him a set of commutators, which enable him to communicate with any desired telephotic line. Thus the subscribers not only hear the news but see the occurrences. When an incident is described that is already past, photographs of

its main features are transmitted with the narrative. And there is no confusion withal. The reporters' items, just like the different stories and all the other component parts of the journal, are classified automatically according to an ingenious system, and reach the hearer in due succession. Furthermore, the hearers are free to listen only to what specially concerns them. They may at pleasure give attention to one editor and refuse it to another.

Mr. Smith next addresses one of the ten reporters in the astronomical department—a department still in the embryonic stage, but which will yet play an important part in journalism.

"Well, Cash, what's the news?"

"We have phototelegrams from Mercury, Venus, and Mars."

"Are those from Mars of any interest?"

"Yes, indeed. There is a revolution in the Central Empire."

"And what of Jupiter?" asked Mr. Smith.

"Nothing as yet. We cannot quite understand their signals. Perhaps ours do not reach them."

"That's bad," exclaimed Mr. Smith, as he hurried away, not in the best of humor, toward the hall of the scientific editors.

With their heads bent down over their electric computers, thirty scientific men were absorbed in transcendental calculations. The coming of Mr. Smith was like the falling of a bomb among them.

"Well, gentlemen, what is this I hear? No answer from Jupiter? Is it always to be thus? Come, Cooley, you have been at work now twenty years on this problem, and yet—"

"True enough," replied the man addressed. "Our science of optics is still very defective, and through our mile-and-three-quarter telescopes."

"Listen to that, Peer," broke in Mr. Smith, turning to a second scientist. "Optical science defective! Optical science is your specialty. But," he continued, again addressing William Cooley, "failing with Jupiter, are we getting any results from the moon?"

"The case is no better there."

"This time you do not lay the blame on the science of optics. The moon is immeasurably less distant than Mars, yet with Mars our communication is fully established. I presume you will not say that you lack telescopes?"

"Telescopes? O no, the trouble here is about inhabitants!"

"That's it," added Peer.

"So, then, the moon is positively uninhabited?" asked Mr. Smith.

"At least," answered Cooley, "on the face which she presents to us. As for the opposite side, who knows?"

"Ah, the opposite side! You think, then," remarked Mr. Smith, musingly, "that if one could but—"

"Could what?"

"Why, turn the moon about-face."

"Ah, there's something in that," cried the two men at once. And indeed, so confident was their air, they seemed to have no doubt as to the possibility of success in such an undertaking.

"Meanwhile," asked Mr. Smith, after a moment's silence, "have you no news of interest to-day'?"

"Indeed we have," answered Cooley. "The elements of Olympus are definitively settled. That great planet gravitates beyond Neptune at the mean distance of 11,400,799,642 miles from the sun, and to traverse its vast orbit takes 1311 years, 294 days, 12 hours, 43 minutes, 9 seconds."

"Why didn't you tell me that sooner?" cried Mr. Smith. "Now inform the reporters of this straightaway. You know how eager is the curiosity of the public with regard to these astronomical questions. That news must go into to-day's issue."

Then, the two men bowing to him, Mr. Smith passed into the next hall, an enormous gallery upward of 3200 feet in length, devoted to atmospheric advertising. Every one has noticed those enormous advertisements reflected from the clouds, so large that they may be seen by the populations of whole cities or even of entire countries. This, too, is one of Mr. Fritz Napoleon Smith's ideas, and in the Earth Chronicle building a thousand projectors are constantly engaged in displaying upon the clouds these mammoth advertisements.

When Mr. Smith to-day entered the sky-advertising department, he found the operators sitting with folded arms at their motionless projectors, and inquired as to the cause of their inaction. In response, the man addressed simply pointed to the sky, which was of a pure blue. "Yes," muttered Mr. Smith, "a cloudless sky! That's too bad, but what's to be done? Shall we produce rain?

That we might do, but is it of any use? What we need is clouds, not rain. Go," said he, addressing the head engineer, "go see Mr. Samuel Mark, of the meteorological division of the scientific department, and tell him for me to go to work in earnest on the question of artificial clouds. It will never do for us to be always thus at the mercy of cloudless skies!"

Mr. Smith's daily tour through the several departments of his newspaper is now finished. Next, from the advertisement hall he passes to the reception chamber, where the ambassadors accredited to the American government are awaiting him, desirous of having a word of counsel or advice from the all-powerful editor. A discussion was going on when he entered. "Your Excellency will pardon me," the French Ambassador was saying to the Russian, "but I see nothing in the map of Europe that requires change. 'The North for the Slavs?' Why, yes, of course; but the South for the Matins. Our common frontier, the Rhine, it seems to me, serves very well. Besides, my government, as you must know, will firmly oppose every movement, not only against Paris, our capital, or our two great prefectures, Rome and Madrid, but also against the kingdom of Jerusalem, the dominion of Saint Peter, of which France means to be the trusty defender."

"Well said!" exclaimed Mr. Smith. "How is it," he asked, turning to the Russian ambassador, "that you Russians are not content with your vast empire, the most extensive in the world, stretching from the banks of the Rhine to the Celestial Mountains and the Kara-Korum, whose shores are washed by the Frozen Ocean, the Atlantic, the Mediterranean, and the Indian Ocean? Then, what is the use of threats? Is war possible in view of modern inventions-asphyxiating shells capable of being projected a distance of 60 miles, an electric spark of 90 miles, that can at one stroke annihilate a battalion; to say nothing of the plague, the cholera, the yellow fever, that the belligerents might spread among their antagonists mutually, and which would in a few days destroy the greatest armies?"

"True," answered the Russian; "but can we do all that we wish? As for us Russians, pressed on our eastern frontier by the Chinese, we must at any cost put forth our strength for an effort toward the west."

"O, is that all? In that case," said Mr. Smith, "the thing can be arranged. I will speak to the Secretary of State about it. The attention of the Chinese

government shall be called to the matter. This is not the first time that the Chinese have bothered us."

"Under these conditions, of course—" And the Russian ambassador declared himself satisfied.

"Ah, Sir John, what can I do for you?" asked Mr. Smith as he turned to the representative of the people of Great Britain, who till now had remained silent.

"A great deal," was the reply. "If the Earth Chronicle would but open a campaign on our behalf—"

"And for what object?"

"Simply for the annulment of the Act of Congress annexing to the United States the British islands."

Though, by a just turn-about of things here below, Great Britain has become a colony of the United States, the English are not yet reconciled to the situation. At regular intervals they are ever addressing to the American government vain complaints.

"A campaign against the annexation that has been an accomplished fact for 150 years!" exclaimed Mr. Smith. "How can your people suppose that I would do anything so unpatriotic?"

"We at home think that your people must now be sated. The Monroe doctrine is fully applied; the whole of America belongs to the Americans. What more do you want? Besides, we will pay for what we ask."

"Indeed!" answered Mr. Smith, without manifesting the slightest irritation. "Well, you English will ever be the same. No, no, Sir John, do not count on me for help. Give up our fairest province, Britain? Why not ask France generously to renounce possession of Africa, that magnificent colony the complete conquest of which cost her the labor of 800 years? You will be well received!"

"You decline! All is over then!" murmured the British agent sadly. "The United Kingdom falls to the share of the Americans; the Indies to that of—"

"The Russians," said Mr. Smith, completing the sentence.

"Australia—"

"Has an independent government."

"Then nothing at all remains for us!" sighed Sir John, downcast.

"Nothing?" asked Mr. Smith, laughing. "Well, now, there's Gibraltar!"

With this sally, the audience ended. The clock was striking twelve, the hour

of breakfast. Mr. Smith returns to his chamber. Where the bed stood in the morning a table all spread comes up through the floor. For Mr. Smith, being above all a practical man; has reduced the problem of existence to its simplest terms. For him, instead of the endless suites of apartments of the olden time, one room fitted with ingenious mechanical contrivances is enough. Here he sleeps, takes his meals, in short, lives.

He seats himself. In the mirror of the phonotelephote is seen the same chamber at Paris which appeared in it this morning. A table furnished forth is likewise in readiness here, for notwithstanding the difference of hours, Mr. Smith and his wife have arranged to take their meals simultaneously. It is delightful thus to take breakfast *tête-a-tête* with one who is 3000 miles or so away. Just now, Mrs. Smith's chamber has no occupant.

"She is late! Woman's punctuality! Progress everywhere except there!" muttered Mr. Smith as he turned the tap for the first dish. For like all wealthy folk in our day, Mr. Smith has done away with the domestic kitchen and is a subscriber to the Grand Alimentation Company, which sends through a great network of tubes to subscribers' residences all sorts of dishes, as a varied assortment is always in readiness. A subscription costs money, to be sure, but the *cuisine* is of the best, and the system has this advantage, that it, does away with the pestering race of the *cordons-bleus*. Mr. Smith received and ate, all alone, the *hors-d'oeuvre, entrées, rôti* and *legumes* that constituted the repast. He was just finishing the dessert when Mrs. Smith appeared in the mirror of the telephote.

"Why, where have you been?" asked Mr. Smith through the telephone.

"What! You are already at the dessert? Then I am late," she exclaimed, with a winsome *naïveté*. "Where have I been, you ask? Why, at my dress-maker's. The hats are just lovely this season! I suppose I forgot to note the time, and so am a little late."

"Yes, a little," growled Mr. Smith; "so little that I have already quite finished breakfast. Excuse me if I leave you now, but I must be going."

"O certainly, my dear; good-by till evening."

Smith stepped into his air-coach, which was in waiting for him at a window. "Where do you wish to go, sir?" inquired the coachman.

"Let me see; I have three hours," Mr. Smith mused. "Jack, take me to my

accumulator works at Niagara."

For Mr. Smith has obtained a lease of the great falls of Niagara. For ages the energy developed by the falls went unutilized. Smith, applying Jackson's invention, now collects this energy, and lets or sells it. His visit to the works took more time than he had anticipated. It was four o'clock when he returned home, just in time for the daily audience which he grants to callers.

One readily understands how a man situated as Smith is must be beset with requests of all kinds. Now it is an inventor needing capital; again it is some visionary who comes to advocate a brilliant scheme which must surely yield millions of profit. A choice has to be made between these projects, rejecting the worthless, examining the questionable ones, accepting the meritorious. To this work Mr. Smith devotes every day two full hours.

The callers were fewer to-day than usual—only twelve of them. Of these, eight had only impracticable schemes to propose. In fact, one of them wanted to revive painting, an art fallen into desuetude owing to the progress made in color-photography. Another, a physician, boasted that he had discovered a cure for nasal catarrh! These impracticables were dismissed in short order. Of the four projects favorably received, the first was that of a young man whose broad forehead betokened his intellectual power.

"Sir, I am a chemist," he began, "and as such I come to you."

"Well!"

"Once the elementary bodies," said the young chemist, "were held to be sixty-two in number; a hundred years ago they were reduced to ten; now only three remain irresolvable, as you are aware."

"Yes, yes."

"Well, sir, these also I will show to be composite. In a few months, a few weeks, I shall have succeeded in solving the problem. Indeed, it may take only a few days."

"And then?"

"Then, sir, I shall simply have determined the absolute. All I want is money enough to carry my research to a successful issue."

"Very well," said Mr. Smith. "And what will be the practical outcome of your discovery?"

"The practical outcome? Why, that we shall be able to produce easily all

bodies whatever—stone, wood, metal, fibers—"

"And flesh and blood?" queried Mr. Smith, interrupting him. "Do you pretend that you expect to manufacture a human being out and out?"

"Why not?"

Mr. Smith advanced $100,000 to the young chemist, and engaged his services for the Earth Chronicle laboratory.

The second of the four successful applicants, starting from experiments made so long ago as the nineteenth century and again and again repeated, had conceived the idea of removing an entire city all at once from one place to another. His special project had to do with the city of Granton, situated, as everybody knows, some fifteen miles inland. He proposes to transport the city on rails and to change it into a watering-place. The profit, of course, would be enormous. Mr. Smith, captivated by the scheme, bought a half-interest in it.

"As you are aware, sir," began applicant No. 3, "by the aid of our solar and terrestrial accumulators and transformers, we are able to make all the seasons the same. I propose to do something better still. Transform into heat a portion of the surplus energy at our disposal; send this heat to the poles; then the polar regions, relieved of their snow-cap, will become a vast territory available for man's use. What think you of the scheme?"

"Leave your plans with me, and come back in a week. I will have them examined in the meantime."

Finally, the fourth announced the early solution of a weighty scientific problem. Every one will remember the bold experiment made a hundred years ago by Dr. Nathaniel Faithburn. The doctor, being a firm believer in human hibernation—in other words, in the possibility of our suspending our vital functions and of calling them into action again after a time—resolved to subject the theory to a practical test. To this end, having first made his last will and pointed out the proper method of awakening him; having also directed that his sleep was to continue a hundred years to a day from the date of his apparent death, he unhesitatingly put the theory to the proof in his own person.

Reduced to the condition of a mummy, Dr. Faithburn was coffined and laid in a tomb. Time went on. September 25th, 2889, being the day set for his resurrection, it was proposed to Mr. Smith that he should permit the second part of the experiment to be performed at his residence this evening.

"Agreed. Be here at ten o'clock," answered Mr. Smith; and with that the day's audience was closed.

Left to himself, feeling tired, he lay down on an extension chair. Then, touching a knob, he established communication with the Central Concert Hall, whence our greatest *maestros* send out to subscribers their delightful successions of accords determined by recondite algebraic formulas. Night was approaching. Entranced by the harmony, forgetful of the hour, Smith did not notice that it was growing dark. It was quite dark when he was aroused by the sound of a door opening. "Who is there?" he asked, touching a commutator.

Suddenly, in consequence of the vibrations produced, the air became luminous.

"Ah! you, Doctor?"

"Yes," was the reply. "How are you?"

"I am feeling well."

"Good! Let me see your tongue. All right! Your pulse. Regular! And your appetite?"

"Only passably good."

"Yes, the stomach. There's the rub. You are over-worked. If your stomach is out of repair, it must be mended. That requires study. We must think about it."

"In the meantime," said Mr. Smith, "you will dine with me."

As in the morning, the table rose out of the floor. Again, as in the morning, the *potage, rôti, ragoûts*, and *legumes* were supplied through the food-pipes. Toward the close of the meal, phonotelephotic communication was made with Paris. Smith saw his wife, seated alone at the dinner-table, looking anything but pleased at her loneliness.

"Pardon me, my dear, for having left you alone," he said through the telephone. "I was with Dr. Wilkins."

"Ah, the good doctor!" remarked Mrs. Smith, her countenance lighting up.

"Yes. But, pray, when are you coming home?"

"This evening."

"Very well. Do you come by tube or by air-train?"

"Oh, by tube."

"Yes; and at what hour will you arrive?"

"About eleven, I suppose."

"Eleven by Centropolis time, you mean?"

"Yes."

"Good-by, then, for a little while," said Mr. Smith as he severed communication with Paris.

Dinner over, Dr. Wilkins wished to depart. "I shall expect you at ten," said Mr Smith. "To-day, it seems, is the day for the return to life of the famous Dr. Faithburn. You did not think of it, I suppose. The awakening is to take place here in my house. You must come and see. I shall depend on your being here."

"I will come back," answered Dr. Wilkins.

Left alone, Mr. Smith busied himself with examining his accounts—a task of vast magnitude, having to do with transactions which involve a daily expenditure of upward of $800,000. Fortunately, indeed, the stupendous progress of mechanic art in modern times makes it comparatively easy. Thanks to the Piano Electro-Reckoner, the most complex calculations can be made in a few seconds. In two hours Mr. Smith completed his task. Just in time. Scarcely had he turned over the last page when Dr. Wilkins arrived. After him came the body of Dr. Faithburn, escorted by a numerous company of men of science. They commenced work at once. The casket being laid down in the middle of the room, the telephote was got in readiness. The outer world, already notified, was anxiously expectant, for the whole world could be eye-witnesses of the performance, a reporter meanwhile, like the chorus in the ancient drama, explaining it all *viva voce* through the telephone.

"They are opening the casket," he explained. "Now they are taking Faithburn out of it—a veritable mummy, yellow, hard, and dry. Strike the body and it resounds like a block of wood. They are now applying heat; now electricity. No result. These experiments are suspended for a moment while Dr. Wilkins makes an examination of the body. Dr. Wilkins, rising, declares the man to be dead. 'Dead! 'exclaims every one present. 'Yes,' answers Dr. Wilkins, 'dead!' 'And how long has he been dead?' Dr. Wilkins makes another examination. 'A hundred years,' he replies."

The case stood just as the reporter said. Faithburn was dead, quite certainly dead! "Here is a method that needs improvement," remarked Mr. Smith to Dr. Wilkins, as the scientific committee on hibernation bore the casket out. "So much for that experiment. But if poor Faithburn is dead, at least he is sleeping,"

he continued. “I wish I could get some sleep. I am tired out, Doctor, quite tired out! Do you not think that a bath would refresh me?”

“Certainly. But you must wrap yourself up well before you go out into the hall-way. You must not expose yourself to cold.”

“Hall-way? Why, Doctor, as you well know, everything is done by machinery here. It is not for me to go to the bath; the bath will come to me. Just look!” and he pressed a button. After a few seconds a faint rumbling was heard, which grew louder and louder. Suddenly the door opened, and the tub appeared.

Such, for this year of grace 2889, is the history of one day in the life of the editor of the Earth Chronicle. And the history of that one day is the history of 365 days every year, except leap-years, and then of 366 days—for as yet no means has been found of increasing the length of the terrestrial year.


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PLANET OF DREAD
R. F. STARZL

THE PLANET OF DREAD



By R. F. Starzl

There was no use hiding from the truth. Somebody had blundered—a fatal blunder—and they were going to pay for it! Mark Forepaugh kicked the pile of hydrogen cylinders. Only a moment ago he had broken the seals—the mendacious seals that certified to the world that the flasks were fully charged. And the flasks were empty! The supply of this precious power gas, which in an emergency should have been sufficient for six years, simply did not exist.

He walked over to the integrating machine, which as early as the year 2031 had begun to replace the older atomic processes, due to the shortage of the radium series metals. It was bulky and heavy compared to the atomic disintegrators, but it was much more economical and very dependable. Dependable—provided some thick-headed stock clerk at a terrestrial supply station did not check in empty hydrogen cylinders instead of full ones. Forepaugh's unwonted curses brought a smile to the stupid, good-natured face of his servant, Gunga—he who had been banished for life from his native Mars for his impiety in closing his single round eye during the sacred Ceremony of the Wells.

The Earth man was at this steaming hot, unhealthful trading station under the very shadow of the South Pole of the minor planet Inra for an entirely different reason. One of the most popular of his set on the Earth, an athletic hero, he had fallen in love, and the devoutly wished-for marriage was only prevented by lack of funds. The opportunity to take charge of this richly paid, though dangerous, outpost of civilization had been no sooner offered than taken. In another week or two the relief ship was due to take him and his valuable collection of exotic Inranian orchids back to the Earth, back to a fat bonus, Constance, and an assured future.

It was a different young man who now stood tragically before the useless power plant. His slim body was bowed, and his clean features were drawn. Grimly he raked the cooling dust that had been forced in the integrating chamber by the electronic rearrangement of the original hydrogen atoms—finely powdered iron and silicon—the "ashes" of the last tank of hydrogen.

Gunga chuckled.

"What's the matter?" Forepaugh barked. "Going crazy already?"

"Me, haw! Me, haw! Me thinkin'," Gunga rumbled. "Haw! We got, haw! plenty hydr'gen." He pointed to the low metal roof of the trading station. Though it was well insulated against sound, the place continually vibrated to the low murmur of the Inranian rains that fell interminably through the perpetual polar day. It was a rain such as is never seen on Earth, even in the tropics. It came in drops as large as a man's fist. It came in streams. It came in large, shattering masses that broke before they fell and filled the air with spray. There was little wind, but the steady green downpour of water and the brilliant continuous flashing of lightning shamed the dull soggy twilight produced by the large, hot, but hidden sun.

"*Your* idea of a joke!" Forepaugh growled in disgust. He understood what Gunga's grim pleasantry referred to. There was indeed an incalculable quantity of hydrogen at hand. If some means could be found to separate the hydrogen atoms from the oxygen in the world of water around them they would not lack for fuel. He thought of electrolysis, and relaxed with a sigh. There was no power. The generators were dead, the air drier and cooler had ceased its rhythmic pulsing nearly an hour ago. Their lights were gone, and the automatic radio utterly useless.

"This is what comes of putting all your eggs in one basket," he thought, and let his mind dwell vindictively on the engineers who had designed the equipment on which his life depended.

An exclamation from Gunga startled him. The Martian was pointing to the ventilator opening, the only part of this strange building that was not hermetically sealed against the hostile life of Inra. A dark rim had appeared at its margin, a loathsome, black-green rim that was moving, spreading out. It crept over the metal walls like the low-lying smoke of a fire, yet it was a solid. From it emanated a strong, miasmatic odor.

"The giant mold!" Forepaugh cried. He rushed to his desk and took out his flash pistol, quickly set the localizer so as to cover a large area. When he turned he saw, to his horror, Gunga about to smash into the mold with his ax. He sent the man spinning with a blow to the ear.

"Want to scatter it and start it growing in a half-dozen places?" he snapped. "Here!"

He pulled the trigger. There was a light, spiteful "ping" and for an instant a cone of white light stood out in the dim room like a solid thing. Then it was gone, and with it was gone the black mold, leaving a circular area of blistered paint on the wall and an acrid odor in the air. Forepaugh leaped to the ventilating louver and closed it tightly.

"It's going to be like this from now on," he remarked to the shaken Gunga. "All these things wouldn't bother us as long as the machinery kept the building dry and cool. They couldn't live in here. But it's getting damp and hot. Look at the moisture condensing on the ceiling!"

Gunga gave a guttural cry of despair. "It knows, Boss; look!"

Through one of the round, heavily framed ports it could be seen, the lower part of its large, shapeless body half-floating in the lashing water that covered their rocky shelf to a depth of several feet, the upper part spectral and gray. It was a giant amoeba, fully six feet in diameter in its present spheroid form, but capable of assuming any shape that would be useful. It had an envelope of tough, transparent matter, and was filled with a fluid that was now cloudy and then clear. Near the center there was a mass of darker matter, and this was undoubtedly the seat of its intelligence.

The Earth man recoiled in horror! A single cell with a brain! It was unthinkable. It was a biological nightmare. Never before had he seen one—had, in fact, dismissed the stories of the Inranian natives as a bit of primitive superstition, had laughed at these gentle, stupid amphibians with whom he traded when they, in their imperfect language, tried to tell him of it.

They had called it the Ul-lul. Well, let it be so. It was an amoeba, and it was watching him. It floated in the downpour and watched him. With what? It had no eyes. No matter, it was watching him. And then it suddenly flowed outward until it became a disc rocking on the waves. Again its fluid form changed, and by a series of elongations and contractions it flowed through the water at an incredible speed. It came straight for the window, struck the thick, unbreakable glass with a shock that could be felt by the men inside. It flowed over the glass and over the building. It was trying to eat them, building and all! The part of its body over the port became so thin that it was almost invisible. At last, its absolute limit reached, it dropped away, baffled, vanishing amid the glare of the lightning and the frothing waters like the shadows of a nightmare.

The heat was intolerable and the air was bad.

"Haw, we have to open vent'lator, Boss!" gasped the Martian.

Forepaugh nodded grimly. It wouldn't do to smother either. Though to open the ventilator would be to invite another invasion by the black mold, not to mention the amoebae and other fabulous monsters that had up to now been kept at a safe distance by the repeller zone, a simple adaptation of a very old discovery. A zone of mechanical vibrations, of a frequency of 500,000 cycles per second, was created by a large quartz crystal in the water, which was electrically operated. Without power, the protective zone had vanished.

"We watch?" asked Gunga.

"You bet we watch. Every minute of the 'day' and 'night.'"

He examined the two chronometers, assuring himself that they were well wound, and congratulated himself that they were not dependent on the defunct power plant for energy. They were his only means of measuring the passage of time. The sun, which theoretically would seem to travel round and round the horizon, rarely succeeded in making its exact location known, but appeared to shift strangely from side to side at the whim of the fog and water.

"Th' fellas," Gunga remarked, coming out of a study. "Why not come?" He referred to the Inranians.

"Probably know something's wrong. They can tell the quartz oscillator is stopped. Afraid of the Ul-lul, I suppose."

"'Squeer," demurred the Martian. "Ul-lul not bother fellas."

"You mean it doesn't follow them into the underbrush. But it would find tough going there. Not enough water; trees there, four hundred feet high with thorny roots and rough bark—they wouldn't like that. Oh no, these natives ought to be pretty snug in their dens. Why, they're as hard to catch as a muskrat! Don't know what a muskrat is, huh? Well, it's the same as the Inranians, only different, and not so ugly."

For the next six days they existed in their straitened quarters, one guarding while the other slept, but such alarms as they experienced were of a minor nature, easily disposed of by their flash pistol. It had not been intended for continuous service, and under the frequent drains it showed an alarming loss of

power. Forepaugh repeatedly warned Gunga to be more sparing in its use, but that worthy persisted in his practice of using it against every trifling invasion of the poisonous Inranian cave moss that threatened them, or the warm, soggy water-spiders that hopefully explored the ventilator shaft in search of living food.

"Bash 'em with a broom, or something! Never mind if it isn't nice. Save our flash gun for something bigger."

Gunga only looked distressed.

On the seventh day their position became untenable. Some kind of sea creature, hidden under the ever-replenished storm waters, had found the concrete emplacements of their trading post to its liking. Just how it was done was never learned. It is doubtful that the creatures could gnaw away the solid stone—more likely the process was chemical, but none the less it was effective. The foundations crumbled; the metal shell subsided, rolled half over so that silty water leaked in through the straining seams, and threatened at any moment to be buffeted and urged away on the surface of the flood toward that distant vast sea which covers nine-tenths of the area of Inra.

"Time to mush for the mountains," Forepaugh decided.

Gunga grinned. The Mountains of Perdition were, to his point of view, the only part of Inra even remotely inhabitable. They were sometimes fairly cool, and though perpetually pelted with rain, blazing with lightning and reverberating with thunder, they had caves that were fairly dry and too cool for the black mold. Sometimes, under favorable circumstances on their rugged peaks, one could get the full benefit of the enormous hot sun for whose actinic rays the Martian's starved system yearned.

"Better pack a few cans of the food tablets," the white man ordered. "Take a couple of waterproof sleeping bags for us, and a few hundred fire pellets. You can have the flash pistol; it may have a few more charges in it."

Forepaugh broke the glass case marked "Emergency Only" and removed two more flash pistols. Well he knew that he would need them after passing beyond the trading area—perhaps sooner. His eyes fell on his personal chest, and he opened it for a brief examination. None of the contents seemed of any value, and he was about to pass when he dragged out a long, heavy, .45 caliber

six-shooter in a holster, and a cartridge belt filled with shells. The Martian stared.

"Know what it is?" his master asked, handing him the weapon.

"Gunga not know." He took it and examined it curiously. It was a fine museum piece in an excellent state of preservation, the metal overlaid with the patina of age, but free from rust and corrosion.

"It's a weapon of the Ancients," Forepaugh explained. "It was a sort of family heirloom and is over 300 years old. One of my grandfathers used it in the famous Northwest Mounted Police. Wonder if it'll still shoot."

He leveled the weapon at a fat, sightless wriggler that came squirming through a seam, squinting unaccustomed eyes along the barrel. There was a violent explosion, and the wriggler disappeared in a smear of dirty green. Gunga nearly fell over backward in fright, and even Forepaugh was shaken. He was surprised that the ancient cartridge had exploded at all, though he knew powder making had reached a high level of perfection before explosive chemical weapons had yielded to the newer, lighter, and infinitely more powerful ray weapons. The gun would impede their progress. It would be of very little use against the giant Carnivora of Inra. Yet something—perhaps a sentimental attachment, perhaps what his ancestors would have called a "hunch"—compelled him to strap it around his waist. He carefully packed a few essentials in his knapsack, together with one chronometer and a tiny gyroscopic compass. So equipped, they could travel with a fair degree of precision toward the mountains some hundred miles on the other side of a steaming forest, a-crawl with feral life, and hot with blood-lust.

Man and master descended into the warm waters and, without a backward glance, left the trading post to its fate. There was not even any use in leaving a note. Their relief ship, soon due, would never find the station without radio direction.

The current was strong, but the water gradually became shallower as they ascended the sloping rock. After half an hour they saw ahead of them the loom of the forest, and with some trepidation they entered the gloom cast by the towering, fernlike trees, whose tops disappeared in murky fog. Tangled vines impeded their progress. Quagmires lay in wait for them, and tough weeds

tripped them, sometimes throwing one or another into the mud among squirming small reptiles that lashed at them with spiked, poisonous feet and then fell to pieces, each piece to lie in the bubbling ooze until it grew again into a whole animal.

Several times they almost walked under the bodies of great, spheroidal creatures with massive short legs, whose tremendously long, sinuous necks disappeared in the leafy murk above, swaying gently like long-stalked lilies in a terrestial pond. These were azornacks, mild-tempered vegetarians whose only defense lay in their thick, blubbery hides. Filled with parasites, stinking and rancid, their decaying covering of fat effectively concealed the tender flesh underneath, protecting them from fangs and rending claws.

Deeper in the forest the battering of the rain was mitigated. Giant neo-palm leaves formed a roof that shut out not only most of the weak daylight, but also the fury of the downpour. The water collected in cataracts, ran down the boles of the trees, and roared through the semi-circular canals of the snake trees, so named by early explorers for their waving, rubbery tentacles, multiplied a millionfold, that performed the duties of leaves. Water gurgled and chuckled everywhere, spread in vast dim ponds and lakes writhing with tormented roots, up-heaved by unseen, uncatalogued leviathans, rippled by translucent discs of loathsome, luminescent jelly that quivered from place to place in pursuit of microscopic prey.

Yet the impression was one of calm and quiet, and the waifs from other worlds felt a surcease of nervous tension. Unconsciously they relaxed. Taking their bearings, they changed their course slightly for the nesting place of the nearest tribe of Inranians where they hoped to get food and at least partial shelter; for their food tablets had mysteriously turned to an unpleasant viscous liquid, and their sleeping bags were alive with giant bacteria easily visible to the eye.

They were doomed to disappointment. After nearly twelve hours of desperate struggling through the morass, through gloomy aisles, and countless narrow escapes from prowling beasts of prey in which only the speed and tremendous power of their flash pistols saved them from instant death, they reached a rocky outcropping which led to the comparatively dry rise of land on

which a tribe of Inranians made its home. Their faces were covered with welts made by the hanging filaments of blood-sucking trees as fine as spider webs, and their senses reeled with the oppressive stench of the abysmal jungle. If the pampered ladies of the Inner Planets only knew where their thousand-dollar orchids sprang from!

Converging runways showed the opening of one of the underground dens, almost hidden from view by a bewildering maze of roots, rendered more formidable by long, sharp stakes made from the iron-hard thigh-bones of the flying kabo.

Forepaugh cupped his hands over his mouth and gave the call.

"Ouf! Ouf! Ouf! Ouf! Ouf!"

He repeated it over and over, the jungle giving back his voice in a muffled echo, while Gunga held a spare flash pistol and kept a sharp lookout for a carnivore intent on getting an unwary Inranian.

There was no answer. These timid creatures, who are often rated the most intelligent life native to primitive Inra, had sensed disaster and had fled.

Forepaugh and Gunga slept in one of the foul, poorly ventilated dens, ate of the hard, woody tubers that had not been worth taking along, and wished they had a certain stock clerk at that place at that time. They were awakened out of deep slumber by the threshing of an evil looking creature which had become entangled among the sharpened spikes. Its tremendous maw, splitting it almost in half, was opened in roars of pain that showed great yellow fangs eight inches in length. Its heavy flippers battered the stout roots and lacerated themselves in the beast's insensate rage. It was quickly dispatched with a flash pistol and Gunga cooked himself some of the meat, using a fire pellet; but despite his hunger Forepaugh did not dare eat any of it, knowing that this species, strange to him, might easily be one of the many on Inra that are poisonous to terrestials.

They resumed their march toward the distant invisible mountains, and were fortunate in finding somewhat better footing than they had on their previous march. They covered about 25 miles on that "day," without untoward incident. Their ray pistols gave them an insuperable advantage over the largest and most ferocious beasts they could expect to meet, so that they became more and more confident, despite the knowledge that they were rapidly using up the energy

stored in their weapons. The first one had long ago been discarded, and the charge indicators of the other two were approaching zero at a disquieting rate. Forepaugh took them both, and from that time on he was careful never to waste a discharge except in case of a direct and unavoidable attack. This often entailed long waits or stealthy detours through sucking mud, and came near to ending both their lives.

The Earth man was in the lead when it happened. Seeking an uncertain footing through a tangle of low-growing, thick, ghastly white vegetation, he placed a foot on what seemed to be a broad, flat rock projecting slightly above the ooze. Instantly there was a violent upheaval of mud; the seeming rock flew up like a trap-door, disclosing a cavernous mouth some seven feet across, and a thick, triangular tentacle flew up from its concealment in the mud in a vicious arc. Forepaugh leaped back barely in time to escape being swept in and engulfed. The end of the tentacle struck him a heavy blow on the chest, throwing him back with such force as to bowl Gunga over, and whirling the pistols out of his hands into a slimy, bulbous growth nearby, where they stuck in the phosphorescent cavities the force of their impact had made.

There was no time to recover the weapons. With a bellow of rage the beast was out of its bed and rushing at them. Nothing stayed its progress. Tough, heavily scaled trees thicker than a man's body shuddered and fell as its bulk brushed by them. But it was momentarily confused, and its first rush carried it past its dodging quarry. This momentary respite saved their lives.

Rearing its plumed head to awesome heights, its knobby bark running with brown rivulets of water, a giant tree, even for that world of giants, offered refuge. The men scrambled up the rough trunk easily, finding plenty of hand and footholds. They came to rest on one of the shelflike circumvoluting rings, some twenty-five feet above the ground. Soon the blunt brown tentacles slithered in search of them, but failed to reach their refuge by inches.

And now began the most terrible siege that interlopers in that primitive world can endure. From that cavernous, distended throat came a tremendous, world-shaking noise.

"HOOM! HOOM! HOOM! HOOM! HOOM! HOOM!"

Forepaugh put his hand to his head. It made him dizzy. He had not believed

that such noise could be. He knew that no creature could long live amidst it. He tore strips from his shredded clothing and stuffed his ears, but felt no relief.

"HOOM! HOOM! HOOM! HOOM! HOOM!"

It throbbed in his brain.

Gunga lay a-sprawl, staring with fascinated eye into the pulsating scarlet gullet that was blasting the world with sound. Slowly, slowly he was slipping. His master hauled him back. The Martian grinned at him stupidly, slid again to the edge.

Once more Forepaugh pulled him back. The Martian seemed to acquiesce. His single eye closed to a mere slit. He moved to a position between Forepaugh and the tree trunk, braced his feet.

"No you don't!" The Earth man laughed uproariously. The din was making him light-headed. It was so funny! Just in time he had caught that cunning expression and prepared for the outlashing of feet designed to plunge him into the red cavern below and to stop that hellish racket.

"And now—"

He swung his fist heavily, slamming the Martian against the tree. The red eye closed wearily. He was unconscious, and lucky.

Hungrily the Earth man stared at his distant flash pistols, plainly visible in the luminescence of their fungus bedding. He began a slow, cautious creep along the top of a vine some eight inches thick. If he could reach them....

Crash! He was almost knocked to the ground by the thud of a frantic tentacle against the vine. His movement had been seen. Again the tentacle struck with crushing force. The great vine swayed. He managed to reach the shelf again in the very nick of time.

"HOOM! HOOM! HOOM! HOOM! HOOM!"

A bolt of lightning struck a giant fern some distance away. The crash of thunder was hardly noticeable. Forepaugh wondered if his tree would be struck. Perhaps it might even start a fire, giving him a flaming brand with which to torment his tormentor. Vain hope! The wood was saturated with moisture. Even the fire pellets could not make it burn.

"HOOM! HOOM! HOOM! HOOM! HOOM! HOOM! HOOM!"

The six-shooter! He had forgotten it. He jerked it from its holster and

pointed it at the red throat, emptied all the chambers. He saw the flash of yellow flame, felt the recoil, but the sound of the discharges was drowned in the Brobdignagian tumult. He drew back his arm to throw the useless toy from him. But again that unexplainable, senseless "hunch" restrained him. He reloaded the gun and returned it to its holster.

"HOOM! HOOM! HOOM! HOOM! HOOM! HOOM!"

A thought had been struggling to reach his consciousness against the pressure of the unbearable noise. The fire pellets! Couldn't they be used in some way? These small chemical spheres, no larger than the end of his little finger, had long ago supplanted actual fire along the frontiers, where electricity was not available for cooking. In contact with moisture they emitted terrific heat, a radiant heat which penetrated meat, bone, and even metal. One such pellet would cook a meal in ten minutes, with no sign of scorching or burning. And they had several hundred in one of the standard moisture-proof containers.

As fast as his fingers could work the trigger of the dispenser Forepaugh dropped the potent little pellets down the bellowing throat. He managed to release about thirty before the bellowing stopped. A veritable tornado of energy broke loose at the foot of the tree. The giant maw was closed, and the shocking silence was broken only by the thrashing of a giant body in its death agonies. The radiant heat, penetrating through and through the beast's body, withered nearby vegetation and could be easily felt on the perch up the tree.

Gunga was slowly recovering. His iron constitution helped him to rally from the powerful blow he had received, and by the time the jungle was still he was sitting up mumbling apologies.

"Never mind," said his master. "Shin down there and cut us off a good helping of roast tongue, if it has a tongue, before something else comes along and beats us out of a feast."

"Him poison, maybe," Gunga demurred. They had killed a specimen new to zoologists.

"Might as well die of poison as starvation," Forepaugh countered.

Without more ado the Martian descended, cut out some large, juicy chunks as his fancy dictated, and brought his loot back up the tree. The meat was delicious and apparently wholesome. They gorged themselves and threw away

what they could not eat, for food spoils very quickly in the Inranian jungles and uneaten meat would only serve to attract hordes of the gauzy-winged, glutinous Inranian swamp flies. As they sank into slumber they could hear the beginning of a bedlam of snarling and fighting as the lesser Carnivora fed on the body of the fallen giant.

When they awoke the chronometer recorded the passing of twelve hours, and they had to tear a network of strong fibers with which the tree had invested them preparatory to absorbing their bodies as food. For so keen is the competition for life on Inra that practically all vegetation is capable of absorbing animal food directly. Many an Inranian explorer can tell tales of narrow escapes from some of the more specialized flesh-eating plants; but they are now so well known that they are easily avoided.

A clean-picked framework of crushed and broken giant bones was all that was left of the late bellowing monster. Six-legged water dogs were polishing them hopefully, or delving into them with their long, sinuous snouts for the marrow. The Earth man fired a few shots with his six-shooter, and they scattered, dragging the bodies of their fallen companions to a safe distance to be eaten.

Only one of the flash pistols was in working order. The other had been trampled by heavy hoofs and was useless. A heavy handicap under which to traverse fifty miles of abysmal jungle. They started with nothing for breakfast except water, of which they had plenty.

Fortunately the outcroppings of rocks and gravel washes were becoming more and more frequent, and they were able to travel at much better speed. As they left the low-lying jungle land they entered a zone which was faintly reminiscent of a terrestial jungle. It was still hot, soggy, and fetid, but gradually the most primitive aspects of the scene were modified. The over-arching trees were less closely packed, and they came across occasional rock clearings which were bare of vegetation except for a dense carpet of brown, lichenlike vegetation that secreted an astonishing amount of juice. They slipped and sloshed through this, rousing swarms of odd, toothed birds, which darted angrily around their heads and slashed at them with the razor-sharp saw edges on the back of their legs. Annoying as they were, they could be kept away with branches torn from

trees, and their presence connoted an absence of the deadly jungle flesh-eaters, permitting a temporary relaxation of vigilance and saving the resources of the last flash gun.

They camped that "night" on the edge of one of these rock clearings. For the first time in weeks it had stopped raining, although the sun was still obscured. Dimly on the horizon could be seen the first of the foothills. Here they gathered some of the giant, oblong fungus that early explorers had taken for blocks of porous stone because of their size and weight, and, by dint of the plentiful application of fire pellets, managed to set it ablaze. The heat added nothing to their comfort, but it dried them out and allowed them to sleep unmolested.

An unwary winged eel served as their breakfast, and soon they were on their way to those beckoning hills. It had started to rain again, but the worst part of their journey was over. If they could reach the top of one of the mountains there was a good chance that they would be seen and rescued by their relief ship, provided they did not starve first. The flyer would use the mountains as a base from which to search for the trading station, and it was conceivable that the skipper might actually have anticipated their desperate adventure and would look for them in the Mountains of Perdition.

They had crossed several ranges of the foothills and were beginning to congratulate themselves when the diffused light from above was suddenly blotted out. It was raining again, and above the echo-augmented thunder they heard a shrill screeching.

"A web serpent!" Gunga cried, throwing himself flat on the ground.

Forepaugh eased into a rock cleft at his side. Just in time. A great grotesque head bore down upon him, many-fanged as a medieval dragon. Between obsidian eyes was a fissure whence emanated a wailing and a foul odor. Hundreds of short, clawed legs slithered on the rocks under a long sinuous body. Then it seemed to leap into the air again. Webs grew taut between the legs, strumming as they caught a strong uphill wind. Again it turned to the attack, and missed them. This time Forepaugh was ready for it. He shot at it with his flash pistol.

Nothing happened. The fog made accurate shooting impossible, and the gun lacked its former power. The web serpent continued to course back and forth over their heads.

"Guess we'd better run for it," Forepaugh murmured.

"Go 'head!"

They cautiously left their places of concealment. Instantly the serpent was down again, persistent if inaccurate. It struck the place of their first concealment and missed them.

"Run!"

They extended their weary muscles to the utmost, but it was soon apparent that they could not escape long. A rock wall in their path saved them.

"Hole!" the Martian gasped.

Forepaugh followed him into the rocky cleft. There was a strong draft of dry air, and it would have been next to impossible to hold the Martian back, so Forepaugh allowed him to lead on toward the source of the draft. As long as it led into the mountains he didn't care.

The natural passageway was untenanted. Evidently its coolness and dryness made it untenable for most of Inra's humidity and heat loving life. Yet the floor was so smooth that it must have been artificially leveled. Faint illumination was provided by the rocks themselves. They appeared to be covered by some microscopic phosphorescent vegetation.

After hundreds of twists and turns and interminable straight galleries the cleft turned more sharply upward, and they had a period of stiff climbing. They must have gone several miles and climbed at least 20,000 feet. The air became noticeably thin, which only exhilarated Gunga, but slowed the Earth man down. But at last they came to the end of the cleft. They could go no further, but above them, at least 500 feet higher, they saw a round patch of sky, miraculously bright blue sky!

"A pipe!" Forepaugh cried.

He had often heard of these mysterious, almost fabulous structures sometimes reported by passing travelers. Straight and true, smooth as glass and apparently immune to the elements, they had been occasionally seen standing on the very tops of the highest mountains—seen for a few moments only before they were hidden again by the clouds. Were they observatories of some ancient

race, placed thus to pierce the mysteries of outer space? They would find out.

The inside of the pipe had zigzagging rings of metal, conveniently spaced for easy climbing. With Gunga leading, they soon reached the top. But not quite.

"Eh?" said Forepaugh.

"Uh?" said Gunga.

There had not been a sound, but a distinct, definite command had registered on their minds.

"Stop!"

They tried to climb higher, but could not unclasp their hands. They tried to descend, but could not lower their feet.

The light was by now relatively bright, and as by command their eyes sought the opposite wall. What they saw gave their jaded nerves an unpleasant thrill—a mass of doughy matter of a blue-green color about three feet in diameter, with something that resembled a cyst filled with transparent liquid near its center.

And this thing began to flow along the rods, much as tar flows. From the mass extended a pseudopod; touched Gunga on the arm. Instantly the arm was raw and bleeding. Terrified, immovable, he writhed in agony. The pseudopod returned to the main mass, disappearing into its interior with the strip of bloody skin.

Its attention was centered so much on the luckless Martian that its control slipped from Forepaugh. Seizing his flash pistol, he set the localized for a small area and aimed it at the thing, intent on burning it into nothingness. But again his hand was stayed. Against the utmost of his will-power his fingers opened, letting the pistol drop. The liquid in the cyst danced and bubbled. Was it laughing at him? It had read his mind—thwarted his will again.

Again a pseudopod stretched out and a strip of raw, red flesh adhered to it and was consumed. Mad rage convulsed the Earth man. Should he throw himself tooth and nail on the monster? And be engulfed?

He thought of the six-shooter. It thrilled him.

But wouldn't it make him drop that too?

A flash of atavistic cunning came to him.

He began to reiterate in his mind a certain thought.

"This thing is so I can see you better—this thing is so I can see you better."

He said it over and over, with all the passion and devotion of a celibate's prayer over a uranium fountain.

"This thing is harmless—but it will make me see you better!"

Slowly he drew the six-shooter. In some occult way he knew it was watching him.

"Oh, this is harmless! This is an instrument to aid my weak eyes! It will help me realize your mastery! This will enable me to know your true greatness. This will enable me to know you as a god."

Was it complacence or suspicion that stirred the liquid in the cyst so smoothly? Was it susceptible to flattery? He sighted along the barrel.

"In another moment your great intelligence will overwhelm me," proclaimed his surface mind desperately, while the subconscious tensed the trigger. And at that the clear liquid burst into a turmoil of alarm. Too late. Forepaugh went limp, but not before he had loosed a steel-jacketed bullet that shattered the mind cyst of the pipe denizen. A horrible pain coursed through his every fibre and nerve. He was safe in the arms of Gunga, being carried to the top of the pipe to the clean dry air, and the blessed, blistering sun.

The pipe denizen was dying. A viscous, inert mass, it dropped lower and lower, lost contact at last, shattered into slime at the bottom.

Miraculous sun! For a luxurious fifteen minutes they roasted there on the top of the pipe, the only solid thing in a sea of clouds as far as the eye could reach. But no! That was a circular spot against the brilliant white of the clouds, and it was rapidly coming closer. In a few minutes it resolved itself into the *Comet*, fast relief ship of the Terrestial, Inranian, Genidian, and Zydian Lines, Inc. With a low buzz of her repulsion motors she drew alongside. Hooks were attached and ports opened. A petty officer and a crew of roustabouts made her fast.

"What the hell's going on here?" asked the cocky little terrestial who was skipper, stepping out and surveying the castaways. "We've been looking for you ever since your directional wave failed. But come on in—come on in!"

He led the way to his stateroom, while the ship's surgeon took Gunga in charge. Closing the door carefully, he delved into the bottom of his locker and brought out a flask.

"Can't be too careful," he remarked, filling a small tumbler for himself and another for his guest. "Always apt to be some snooper to report me. But say—you're wanted in the radio room."

"Radio room nothing! When do we eat?"

"Right away, but you'd better see him. Fellow from the Interplanetary News Agency wants you to broadcast a copyrighted story. Good for about three years' salary, old boy."

"All right. I'll see him"—with a happy sigh—"just as soon as I put through a personal message."

THE LORD OF SPACE



By Victor Rousseau

"On the day of the next full moon every living thing on earth will be wiped out of existence—unless you succeed in your mission, Lee."

Nathaniel Lee looked into the face of Silas Stark, President of the United States of the World, and nodded grimly. "I'll do my best, Sir," he answered.

"You have the facts. We know who this self-styled Black Caesar is, who has declared war upon humanity. He is a Dane named Axelson, whose father, condemned to life imprisonment for resisting the new world-order, succeeded in obtaining possession of an interplanetary liner.

"He filled it with the gang of desperate men who had been associated with him in his successful escape from the penitentiary. Together they sailed into Space. They disappeared. It was supposed that they had somehow met their death in the ether, beyond the range of human ken.

"Thirty years passed, and then this son of Axelson, born, according to his own story, of a woman whom the father had persuaded to accompany him into Space, began to radio us. We thought at first it was some practical joker who was cutting in.



It was like struggling with some vampire creatures in a hideous dream.

"When our electricians demonstrated beyond doubt that the voice came from outer space, it was supposed that some one in our Moon Colony had acquired a transmitting machine. Then the ships we sent to the Moon Colony for gold failed to return. As you know, for seven weeks there has been no communication with the Moon. And at the last full moon the—blow—fell.

"The world depends upon you, Lee. The invisible rays that destroyed every living thing from China to Australia—one-fifth of the human race—will fall upon the eastern seaboard of America when the moon is full again. That has been the gist of Axelson's repeated communications.

"We shall look to you to return, either with the arch-enemy of the human race as your prisoner, or with the good news that mankind has been set free from the menace that overhangs it.

"God bless you, my boy!" The President of the United States of the World gripped Nat's hand and stepped down the ladder that led from the landing-stage of the great interplanetary space-ship.

The immense landing-field reserved for the ships of the Interplanetary Line was situated a thousand feet above the heart of New York City, in Westchester County. It was a flat space set on the top of five great towers, strewn with electrified sand, whose glow had the property of dispersing the sea fogs. There, at rest upon what resembled nothing so much as iron claws, the long gray shape of the vacuum flyer bulked.

Nat sneezed as he watched the operations of his men, for the common cold, or coryza, seemed likely to be the last of the germ diseases that would yield to medical science, and he had caught a bad one in the Capitol, while listening to the debate in the Senate upon the threat to humanity. And it was cold on the landing-stage, in contrast to the perpetual summer of the glass-roofed city below.

But Nat forgot the cold as he watched the preparations for the ship's departure. Neon and nitrogen gas were being pumped under pressure into the outer shell, where a minute charge of leucon, the newly discovered element that helped to counteract gravitation, combined with them to provide the power that would lift the vessel above the regions of the stratosphere.

In the low roof-buildings that surrounded the stage was a scene of tremendous activity. The selenium discs were flashing signals, and the radio receivers were shouting the late news; on the great power boards dials and light signals stood out in the glow of the amylite tubes. On a rotary stage a thousand feet above the ship a giant searchlight, visible for a thousand miles, moved its shaft of dazzling luminosity across the heavens.

Now the spar-aluminite outer skin of the ship grew bright with the red neon glare. Another ship, from China, dropped slowly to its stage near by, and the unloaders swarmed about the pneumatic tubes to receive the mail. The teleradio was shouting news of a failure of the Manchurian wheat crop. Nat's chief officer, a short cockney named Brent, came up to him.

"Ready to start, Sir," he said.

Nat turned to him. "Your orders are clear?"

"Yes, Sir."

"Send Benson here."

"I'm here, Sir." Benson, the ray-gunner in charge of the battery that comprised the vessel's armament, a lean Yankee from Connecticut, stepped forward.

"You know your orders, Benson? Axelson has seized the Moon and the gold-mines there. He's planning to obliterate the Earth. We've got to go in like mad dogs and shoot to kill. No matter if we kill every living thing there, even our own people who are inmates of the Moon's penal settlement, we've got to account for Axelson."

"Yes, Sir."

"We can't guess how he got those gold-ships that returned with neon and argon for the Moon colonists. But he mustn't get us. Let the men understand that. That's all."

"Very good, Sir."

The teleradio suddenly began to splutter: A-A-A, it called. And instantly every sound ceased about the landing-stage. For that was the call of Axelson, somewhere upon the Moon.

"Axelson speaking. At the next full moon all the American Province of the World Federation will be annihilated, as the Chinese Province was at the last. There's no hope for you, good people. Send out your vacuum liners. I can use a few more of them. Within six months your world will be depopulated, unless you flash me the signal of surrender."

Would the proud old Earth have to come to that? Daily those ominous threats had been repeated, until popular fears had become frenzy. And Nat was being sent out as a last hope. If he failed, there would be nothing but surrender to this man, armed with a super-force that enabled him to lay waste the Earth from the Moon.

Within one hour, those invisible, death-dealing rays had destroyed everything that inhaled oxygen and exhaled carbon. The ray with which the liner was equipped was a mere toy in comparison. It would kill at no more than 500 miles, and its action was quite different.

As a prelude to Earth's surrender, Axelson demanded that World President

Stark and a score of other dignitaries should depart for the Moon as hostages. Every ray fortress in the world was to be dismantled, every treasury was to send its gold to be piled up in a great pyramid on the New York landing-stage. The Earth was to acknowledge Axelson as its supreme master.

The iron claws were turning with a screwlike motion, extending themselves, and slowly raising the interplanetary vessel until she looked like a great metal fish with metal legs ending with suckerlike disks. But already she was floating free as the softly purring engines held her in equipoise. Nat climbed the short ladder that led to her deck. Brent came up to him again.

"That teleradio message from Axelson—" he began.

"Yes?" Nat snapped out.

"I don't believe it came from the Moon at all."

"You don't? You think it's somebody playing a hoax on Earth? You think that wiping out of China was just an Earth-joke?"

"No, Sir." Brent stood steady under his superior's sarcasm. "But I was chief teleradio operator at Greenwich before being promoted to the Province of America. And what they don't know at Greenwich they don't know anywhere."

Brent spoke with that self-assurance of the born cockney that even the centuries had failed to remove, though they had removed the cockney accent.

"Well, Brent?"

"I was with the chief electrician in the receiving station when Axelson was radioing last week. And I noticed that the waves of sound were under a slight Doppler effect. With the immense magnification necessary for transmitting from the Moon, such deflection might be construed as a mere fan-like extension. But there was ten times the magnification one would expect from the Moon; and I calculated that those sound-waves were shifted somewhere."

"Then what's your theory, Brent?"

"Those sounds come from another planet. Somewhere on the Moon there's an intercepting and re-transmitting plant. Axelson is deflecting his rays to give the impression that he's on the Moon, and to lure our ships there."

"What do you advise?" asked Nat.

"I don't know, Sir."

"Neither do I. Set your course Moonward, and tell Mr. Benson to keep his

eyes peeled."

The Moon Colony, discovered in 1976, when Kramer, of Baltimore, first proved the practicability of mixing neon with the inert new gas, leucon, and so conquering gravitation, had proved to be just what it had been suspected of being—a desiccated, airless desolation. Nevertheless, within the depths of the craters a certain amount of the Moon's ancient atmosphere still lingered, sufficient to sustain life for the queer troglodytes, with enormous lung-boxes, who survived there, browsing like beasts upon the stunted, aloe-like vegetation.

Half man, half ape, and very much unlike either, these vestiges of a species on a ruined globe had proved tractable and amenable to discipline. They had become the laborers of the convict settlement that had sprung up on the Moon.

Thither all those who had opposed the establishment of the World Federation, together with all persons convicted for the fourth time of a felony, had been transported, to superintend the efforts of these dumb, unhuman Moon dwellers. For it had been discovered that the Moon craters were extraordinarily rich in gold, and gold was still the medium of exchange on Earth.

To supplement the vestigial atmosphere, huge stations had been set up, which extracted the oxygen from the subterranean waters five miles below the Moon's crust, and recombined it with the nitrogen with which the surface layer was impregnated, thus creating an atmosphere which was pumped to the workers.

Then a curious discovery had been made. It was impossible for human beings to exist without the addition of those elements existing in the air in minute quantities—neon, krypton, and argon. And the ships that brought the gold bars back from the Moon had conveyed these gaseous elements there.

The droning of the sixteen atomic motors grew louder, and mingled with the hum of gyroscopes. The ladder was drawn up and the port hole sealed. On the enclosed bridge Nat threw the switch of durobronze that released the non-conducting shutter which gave play to the sixteen great magnets. Swiftly the great ship shot forward into the air. The droning of the motors became a shrill whine, and then, growing too shrill for human ears to follow it, gave place to

silence.

Nat set the speed lever to five hundred miles an hour, the utmost that had been found possible in passing through the earth's atmosphere, owing to the resistance, which tended to heat the vessel and damage the delicate atomic engines. As soon as the ether was reached, the speed would be increased to ten or twelve thousand. That meant a twenty-two hour run to the Moon Colony—about the time usually taken.

He pressed a lever, which set bells ringing in all parts of the ship. By means of a complicated mechanism, the air was exhausted from each compartment in turn, and then replaced, and as the bells rang, the men at work trooped out of these compartments consecutively. This had been originated for the purpose of destroying any life dangerous to man that might unwittingly have been imported from the Moon, but on one occasion it had resulted in the discovery of a stowaway.

Then Nat descended the bridge to the upper deck. Here, on a platform, were the two batteries of three ray-guns apiece, mounted on swivels, and firing in any direction on the port and starboard sides respectively. The guns were enclosed in a thin sheath of osmium, through which the lethal rays penetrated unchanged; about them, thick shields of lead protected the gunners.

He talked with Benson for a while. "Don't let Axelson get the jump on you," he said. "Be on the alert every moment." The gunners, keen-looking men, graduates from the Annapolis gunnery school, grinned and nodded. They were proud of their trade and its traditions; Nat felt that the vessel was safe in their hands.

The chief mate appeared at the head of the companion, accompanied by a girl. "Stowaway, Sir," he reported laconically. "She tumbled out of the repair shop annex when we let out the air!"

Nat stared at her in consternation, and the girl stared back at him. She was a very pretty girl, hardly more than twenty-two or three, attired in a businesslike costume consisting of a leather jacket, knickers, and the black spiral puttees that had come into style in the past decade. She came forward unabashed.

"Well, who are you?" snapped Nat.

"Madge Dawes, of the Universal News Syndicate," she answered, laughing.

"The devil!" muttered Nat. "You people think you run the World Federation since you got President Stark elected."

"We certainly do," replied the girl, still laughing.

"Well, you don't run this ship," said Nat. "How would you like a long parachute drop back to Earth?"

"Don't be foolish, my dear man," said Madge. "Don't you know you'll get wrinkles if you scowl like that? Smile! Ah, that's better. Now, honestly, Cap we just had to get the jump on everybody else in interviewing Axelson. It means such a lot to me."

Pouts succeeded smiles. "You're not going to be cross about it, are you?" she pleaded.

"Do you realize the risk you're running, young woman?" Nat demanded. "Are you aware that our chances of ever getting back to Earth are smaller than you ought to have dreamed of taking?"

"Oh, that's all right," the girl responded. "And now that we're friends again, would you mind asking the steward to get me something to eat? I've been cooped up in that room downstairs for fifteen hours, and I'm simply starving."

Nat shrugged his shoulders hopelessly. He turned to the chief mate. "Take Miss Dawes down to the saloon and see that Wang Ling supplies her with a good meal," he ordered. "And put her in the Admiral's cabin. That good enough for you?" he asked satirically.

"Oh that'll be fine," answered the girl enthusiastically. "And I shall rely on you to keep me posted about everything that's going on. And a little later I'm going to take X-ray photographs of you and all these men." She smiled at the grinning gunners. "That's the new fad, you know, and we're going to offer prizes for the best developed skeletons in the American Province, and pick a King and Queen of Beauty!"

"A radio, Sir!"

Nat, who had snatched a brief interval of sleep, started up as the man on duty handed him the message. The vessel had been constantly in communication with Earth during her voyage, now nearing completion, but the dreaded A-A-A that prefaced this message told Nat that it came from Axelson.

"Congratulations on your attempt," the message ran, "I have watched your

career with the greatest interest, Lee, through the medium of such scraps of information as I have been able to pick up on the Moon. When you are my guest to-morrow I shall hope to be able to offer you a high post in the new World Government that I am planning to establish. I need good men. Fraternally, the Black Caesar."

Nat whirled about. Madge Dawes was standing behind him, trying to read the message over his shoulder.

"Spying, eh?" said Nat bitterly.

"My dear man, isn't that my business?"

"Well, read this, then," said Nat, handing her the message. "You're likely to repent this crazy trick of yours before we get much farther."

And he pointed to the cosmic-ray skiagraph of the Moon on the curved glass dome overhead. They were approaching the satellite rapidly. It filled the whole dome, the craters great black hollows, the mountains standing out clearly. Beneath the dome were the radium apparatus that emitted the rays by which the satellite was photographed cinematographically, and the gyroscope steering apparatus by which the ship's course was directed.

Suddenly a buzzer sounded a warning. Nat sprang to the tube.

"Gravitational interference X40, gyroscopic aberrancy one minute 29," he called. "Discharge static electricity from hull. Mr. Benson, stand by."

"What does that mean?" asked Madge.

"It means I shall be obliged if you'll abstain from speaking to the man at the controls," snapped Nat.

"And what's that?" cried Madge in a shriller voice, pointing upward.

Across the patterned surface of the Moon, shown on the skiagraph, a black, cigar-shaped form was passing. It looked like one of the old-fashioned dirigibles, and the speed with which it moved was evident from the fact that it was perceptibly traversing the Moon's surface. Perhaps it was travelling at the rate of fifty thousand miles an hour.

Brent, the chief officer, burst up the companion. His face was livid.

"Black ship approaching us from the Moon, Sir," he stammered. "Benson's training his guns, but it must be twenty thousands miles away."

"Yes, even our ray-guns won't shoot that distance," answered Nat. "Tell

Benson to keep his guns trained as well as he can, and open fire at five hundred."

Brent disappeared. Madge and Nat were alone on the bridge. Nat was shouting incomprehensible orders down the tube. He stopped and looked up. The shadow of the approaching ship had crossed the Moon's disk and disappeared.

"Well, young lady, I think your goose is cooked," said Nat. "If I'm not mistaken, that ship is Axelson's, and he's on his way to knock us galley-west. And now oblige me by leaving the bridge."

"I think he's a perfectly delightful character, to judge from that message he sent you," answered Madge, "and—"

Brent appeared again. "Triangulation shows ten thousand miles, Sir," he informed Nat.

"Take control," said Nat. "Keep on the gyroscopic course, allowing for aberrancy, and make for the Crater of Pytho. I'll take command of the guns." He hurried down the companion, with Madge at his heels.

The gunners stood by the ray-guns, three at each. Benson perched on a revolving stool above the batteries. He was watching a periscopic instrument that connected with the bridge dome by means of a tube, a flat mirror in front of him showing all points of the compass. At one edge the shadow of the black ship was creeping slowly forward.

"Eight thousand miles, Sir," he told Nat. "One thousand is our extreme range. And it looks as if she's making for our blind spot overhead."

Nat stepped to the speaking-tube. "Try to ram her," he called up to Brent. "We'll open with all guns, pointing forward."

"Very good, Sir," the Cockney called back.

The black shadow was now nearly in the centre of the mirror. It moved upward, vanished. Suddenly the atomic motors began wheezing again. The wheeze became a whine, a drone.

"We've dropped to two thousand miles an hour, Sir," called Brent.

Nat leaped for the companion. As he reached the top he could hear the teleradio apparatus in the wireless room overhead begin to chatter:

"A-A-A. Don't try to interfere. Am taking you to the Crater of Pytho. Shall

renew my offer there. Any resistance will be fatal. Axelson."

And suddenly the droning of the motors became a whine again, then silence. Nat stared at the instrument-board and uttered a cry.

"What's the matter?" demanded Madge.

Nat swung upon her. "The matter?" he bawled. "He's neutralized our engines by some infernal means of his own, and he's towing us to the Moon!"

The huge sphere of the Moon had long since covered the entire dome. The huge Crater of Pytho now filled it, a black hollow fifty miles across, into which they were gradually settling. And, as they settled, the pale Earth light, white as that of the Moon on Earth, showed the gaunt masses of bare rock, on which nothing grew, and the long stalactites of glassy lava that hung from them.

Then out of the depths beneath emerged the shadowy shape of the landing-stage.

"You are about to land," chattered the radio. "Don't try any tricks; they will be useless. Above all, don't try to use your puny ray. You are helpless."

The ship was almost stationary. Little figures could be seen swarming upon the landing-stage, ready to adjust the iron claws to clamp the hull. With a gesture of helplessness, Nat left the bridge and went down to the main deck where, in obedience to his orders, the crew had all assembled.

"Men, I'm putting it up to you," he said. "Axelson, the Black Caesar, advises us not to attempt to use the Ray-guns. I won't order you to. I'll leave the decision with you."

"We tried it fifteen minutes ago, Sir," answered Benson. "I told Larrigan to fire off the stern starboard gun to see if it was in working order, and it wasn't!"

At that moment the vessel settled with a slight jar into the clamps. Once more the teleradio began to scream:

"Open the port hold and file out slowly. Resistance is useless. I should turn my ray upon you and obliterate you immediately. Assemble on the landing-stage and wait for me!"

"You'd best obey," Nat told his men. "We've got a passenger to consider." He glared at Madge as he spoke, and Madge's smile was a little more tremulous than it had been before.

"This is the most thrilling experience of my life, Captain Lee," she said.

"And I'll never rest until I've got an X-Ray photograph of Mr. Axelson's skeleton for the Universal News Syndicate."

One by one, Nat last, the crew filed down the ladder onto the landing-stage, gasping and choking in the rarefied air that lay like a blanket at the bottom of the crater. And the reason for this was only too apparent to Nat as soon as he was on the level stage.

Overhead, at an altitude of about a mile, the black ship hung, and from its bow a stupendous searchlight played to and fro over the bottom of the crater, making it as light as day. And where had been the mining machinery, the great buildings that had housed convicts and Moon people, and the huge edifice that contained the pumping station, there was—nothing.

The devilish ray of Axelson had not merely destroyed them, it had obliterated all traces of them, and the crew of the liner were breathing the remnants of the atmosphere that still lay at the bottom of the Crater of Pytho.

But beside the twin landing-stages, constructed by the World Federation, another building arose, with an open front. And that front was a huge mirror, now scintillating under the searchlight from the black ship.

"That's it, Sir!" shouted Brent.

"That's what?" snapped Nat.

"The deflecting mirror I was speaking of. That's what deflected the ray that wiped out China. The ray didn't come from the Moon. And that's the mirror that deflects the teleradio waves, the super-Hertzian rays that carry the sound."

Nat did not answer. Sick at heart at the failure of his mission, he was watching the swarm of Moon men who were at work upon the landing-stage, turning the steel clamps and regulating the mechanism that controlled the apparatus. Dwarfed, apish creature, with tiny limbs, and chests that stood out like barrels, they bustled about, chattering in shrill voices that seemed like the piping of birds.

It was evident that Axelson, though he had wiped out the Moon convicts and the Moon people in the crater, had reserved a number of the latter for personal use.

The black ship was dropping into its position at the second landing-stage, connected with the first by a short bridge. The starboard hold swung open, and a file of shrouded and hooded forms appeared, masked men, breathing in condensed air from receptacles upon their chests, and staring with goggle eyes at their captives. Each one held in his hand a lethal tube containing the ray, and, as if by command, they took up their stations about their prisoners.

Then, at a signal from their leader, they suddenly doffed their masks.

Nat looked at them in astonishment. He had not known whether these would be Earth denizens or inhabitants of some other planet. But they were Earth men. And they were old.

Men of sixty or seventy, years, with long, gray beards and wrinkled faces, and eyes that stared out from beneath penthouses of shaggy eyebrows. Faces on which were imprinted despair and hopelessness.

Then the first man took off his mask and Nat saw a man of different character.

A man in the prime of life, with a mass of jet black hair and a black beard that swept to his waist, a nose like a hawk's, and a pair of dark blue eyes that fixed themselves on Nat's with a look of Luciferian pride.

"Welcome, Nathaniel Lee," said the man, in deep tones that had a curious accent which Nat could not place. "I ought to know your name, since your teleradios on Earth have been shouting it for three days past as that of the man who is to save Earth from the threat of destruction. And you know me!"

"Axelson—the Black Caesar," Nat muttered. For the moment he was taken aback. He had anticipated any sort of person except this man, who stood, looked, and spoke like a Viking, this incarnation of pride and strength.

Axelson smiled—and then his eyes lit upon Madge Dawes. And for a moment he stood as if petrified into a block of massive granite.

"What—who is this?" he growled.

"Why, I'm Madge Dawes, of the Universal News Syndicate," answered the girl, smiling at Axelson in her irrepressible manner. "And I'm sure you're not nearly such a bold, bad pirate as people think, and you're going to let us all go free."

Instantly Axelson seemed to become transformed into a maniac. He turned

to the old men and shouted in some incomprehensible language. Nat and Madge, Brent and Benson, and two others who wore the uniforms of officers were seized and dragged across the bridge to the landing-stage where the black ship was moored. The rest of the crew were ordered into a double line.

And then the slaughter began.

Before Nat could even struggle to break away from the gibbering Moon men to whom he and the other prisoners had been consigned, the aged crew of the Black Caesar had begun their work of almost instantaneous destruction.

Streams of red and purple light shot from the ray-pistols that they carried, and before them the crew of the ether-liner simply withered up and vanished. They became mere masses of human débris piled on the landing-stage, and upon these masses, too, the old men turned their implements, until only a few heaps of charred carbon remained on the landing-stage, impalpable as burned paper, and slowly rising in the low atmospheric pressure until they drifted over the crater.

Nat had cried out in horror at the sight, and tried to tear himself free from the grasp of the Moon dwarfs who held him. So had the rest. Never was struggle so futile. Despite their short arms and legs, the Moon dwarfs held them in an unshakable grip, chattering and squealing as they compressed them against their barrel-like chests until the breath was all but crushed out of their bodies.

"Devil!" cried Nat furiously, as Axelson came up to him. "Why don't you kill us, too?" And he hurled furious taunts and abuse at him, in the hope of goading him into making the same comparatively merciless end of his prisoners.

Axelson looked at him calmly, but made no reply. He looked at Madge again, and his features were convulsed with some emotion that gave him the aspect of a fiend. And then only did Nat realize that it was Madge who was responsible for the Black Caesar's madness.

Axelson spoke again, and the prisoners were hustled up the ladder and on board the black vessel.

"The Kommandant-Kommissar will see you!" The door of their prison had opened, letting in a shaft of light, and disclosing one of the graybeards, who stood there, pointing at Nat.

"The—who?" Nat demanded.

"The Kommandant-Kommissar, Comrade Axelson," snarled the graybeard.

Nat knew what that strange jargon meant. He had read books about the political sect known as Socialists who flourished in the Nineteenth and Twentieth Centuries, and, indeed, were even yet not everywhere extinct. And with that a flash of intuition explained the presence of these old men on board.

These were the men who had been imprisoned in their youth, with Axelson's father, and had escaped and made their way into space, and had been supposed dead long since. Somewhere they must have survived.

And here they were, speaking a jargon of past generations, and ignorant that the world had changed, relics of the past, dead as the dead Moon from which the black ship was winging away through the ether.

"Don't go, Captain," pleaded Madge. "Tell him we'll all go together."

Nat shook his head. "Maybe I'll be able to make terms with him," he answered, and stepped out upon the vessel's deck.

The graybeard slammed the door and laughed savagely. "You'll make no terms with the Black Caesar," he said. "This is the reign of the proletariat. The bourgeois must die! So Lenin decreed!"

But he stopped suddenly and passed his hand over his forehead like a man awakening from a dream.

"Surely the proletariat has already triumphed on earth?" he asked. "A long time has passed, and daily we expect the summons to return and establish the new world-order. What year is this? Is it not 2017? It is so hard to reckon on Eros."

"On Eros?" thought Nat. "This is the year 2044," he answered. "You've been dreaming, my friend. We've had our new world-order, and it's not in the least like the one you and your friends anticipated."

"Gott!" screamed the old man. "Gott, you're lying to me, bourgeois! You're lying, I tell you!"

So Eros was their destination! Eros, one of the asteroids, those tiny fragments of a broken planet, lying outside the orbit of Mars. Some of these little worlds, of which more than a thousand are known to exist, are no larger than a gentleman's country estate; some are mere rocks in space. Eros, Nat knew, was distinguished among them from the fact that it had an eccentric orbit, which

brought it at times nearer Earth than any other heavenly body except the Moon.

Also that it had only been known for thirty years, and that it was supposed to be a double planet, having a dark companion.

That was in Nat's mind as he ascended the bridge to where Axelson was standing at the controls, with one of the graybeards beside him. The door of his stateroom was open, and suddenly there scuttled out of it one of the most bestial objects Nat had ever seen.

It was a Moon woman, a dwarfish figure, clothed in a shapeless garment of spun cellulose, and in her arms she held a heavy-headed Moon baby, whose huge chest stood up like a pyramid, while the tiny arms and legs hung dangling down.

"Here is the bourgeois, Kommandant," said Nat's captor.

Axelson looked at Nat, eye meeting eye in a slow stare. Then he relinquished the controls to the graybeard beside him, and motioned Nat to precede him into the stateroom.

Nat entered. It was an ordinary room, much like that of the captain of the ether-liner now stranded on the Moon. There were a bunk, chairs, a desk and a radio receiver.

Axelson shut the door. He tried to speak and failed to master his emotion. At last he said:

"I am prepared to offer you terms, Nathaniel Lee, in accordance with my promise."

"I'll make no terms with murderers," replied Nat bitterly.

Axelson stood looking at him. His great chest rose and fell. Suddenly he put out one great hand and clapped Nat on the shoulder.

"Wise men," he said, "recognize facts. Within three weeks I shall be the undisputed ruler of Earth. Whether of a desert or of a cowed and submissive subject-population, rests with the Earth men. I have never been on Earth, for I was born on Eros. My mother died at my birth. I have never seen another human woman until to-day."

Nat looked at him, trying to follow what was in Axelson's mind.

"My father fled to Eros, a little planet seventeen miles in diameter, as we have found. He called it a heavenly paradise. It was his intention to found there

a colony of those who were in rebellion against the tyrants of Earth.

"His followers journeyed to the Moon and brought back Moon women for wives. But there were no children of these unions. Later there were dissensions and civil war. Three-fourths of the colony died in battle with one another.

"I was a young man. I seized the reins of power. The survivors—these old men—were disillusioned and docile. I made myself absolute. I brought Moon men and women to Eros to serve us as slaves. But in a few years the last of my father's old compatriots will have died, and thus it was I conceived of conquering Earth and having men to obey me. For fifteen years I have been experimenting and constructing apparatus, with which I now have Earth at my mercy.

"But I shall need assistance, intelligent men who will obey me and aid me in my plans. That is why I saved you and the other officers of your ether-lines. If you will join me, you shall have the highest post on Earth under me, Nathaniel Lee, and those others shall be under you."

Axelson paused, and, loathing the man though he did, Nat was conscious of a feeling of pity for him that he could not control. He saw his lonely life on Eros, surrounded by those phantom humans of the past, and he understood his longing for Earth rule—he the planetary exile, the sole human being of all the planetary system outside Earth, perhaps, except for his dwindling company of aged men.

"To-day, Nathaniel Lee," Axelson went on, "my life was recast in a new mould when I saw the woman you have brought with you. I did not know before that women were beautiful to look on. I did not dream that creatures such as she existed. She must be mine, Nathaniel Lee.

"But that is immaterial. What is your answer to my offer?"

Nat was trying to think, though passion distorted the mental images as they arose in his brain. To Axelson it was evidently incomprehensible that there would be any objection to his taking Madge. Nat saw that he must temporize for Madge's sake.

"I'll have to consult my companions," he answered.

"Of course," answered Axelson. "That is reasonable. Tell them that unless they agree to join me it will be necessary for them to die. Do Earth men mind

death? We hate it on Eros, and the Moon men hate it, too, though they have a queer legend that something in the shape of an invisible man raises from their ashes. My father told me that that superstition existed on Earth in his time, too. Go and talk to your companions, Nathaniel Lee."

The Black Caesar's voice was almost friendly. He clapped Nat on the shoulder again, and called the graybeard to conduct him back to his prison.

"Oh, Captain Lee, I'm so glad you're back!" exclaimed Madge. "We've been afraid for you. Is he such a terrible man, this Black Caesar?"

Nat sneered, then grinned malevolently. "Well, he's not exactly the old-fashioned idea of a Sunday-school teacher," he answered. Of course he could not tell the girl about Axelson's proposal.

The little group of prisoners stood on the upper deck of the black ship and watched the Moon men scurrying about the landing-stage as she hovered to her position.

Axelson's father had not erred when he had called the tiny planet, Eros, a heavenly paradise, for no other term could have described it.

They were in an atmosphere so similar to that of Earth that they could breathe with complete freedom, but there seemed to be a lightness and a vigor in their limbs that indicated that the air was supercharged with oxygen or ozone. The presence of this in large amounts was indicated by the intense blueness of the sky, across which fleecy clouds were drifting.

And in that sky what looked like threescore moons were circling with extraordinary swiftness. From thirty to forty full moons, of all sizes, from that of a sun to that of a brilliant planet, and riding black against the blue.

The sun, hardly smaller than when seen from Earth, shone in the zenith, and Earth and Mars hung in the east and north respectively, each like a blood-red sun.

The moons were some of the thousand other asteroids, weaving their lacy patterns in and out among each other. But, stupendous as the sight was, it was toward the terrestrial scene that the party turned their eyes as the black ship settled.

A sea of sapphire blue lapped sands of silver and broke into soft lines of foam. To the water's edge extended a lawn of brightest green, and behind this an

arm of the sea extended into what looked like a tropical forest. Most of the trees were palmlike, but towered to immense heights, their foliage swaying in a gentle breeze. There were apparently no elevations, and yet, so small was the little sphere that the ascending curve gave the illusion of distant heights, while the horizon, instead of seeming to rise, lay apparently perfectly flat, producing an extraordinary feeling of insecurity.

Near the water's edge a palatial mansion, built of hewn logs and of a single story, stood in a garden of brilliant flowers. Nearer, beyond the high landing-stage, were the great shipbuilding works, and near them an immense and slightly concave mirror flashed back the light of the sun.

"The death ray!" whispered Brent to Nat.

Axelson came up to the party as the ship settled down. "Welcome to Eros," he said cordially. "My father told me that in some Earth tongue that name meant 'love'."

Never, perhaps, was so strange a feast held as that with which Axelson entertained his guests that day. Dwarfish Moon men passed viands and a sort of palm wine in the great banquet-room, which singularly resembled one of those early twentieth century interiors shown in museums. Only the presence of a dozen of the aged guards, armed with ray-rods, lent a grimness to the scene.

Madge sat on Axelson's right, and Nat on his left. The girl's lightheartedness had left her; her face grew strained as Axelson's motives—which Nat had not dared disclose to her—disclosed themselves in his manner.

Once, when he laid his finger for a moment against her white throat, she started, and for a moment it seemed as if the gathering storm must break.

For Nat had talked with his men, and all had agreed that they would not turn traitor, though they intended to temporize as long as possible, in the hope of catching the Black Caesar unawares.

Then slowly a somber twilight began to fall, and Axelson rose.

"Let us walk in the gardens during the reign of Erebos," he said.

"Erebos?" asked Nat.

"The black world that overshadows us each sleeping period," answered Axelson.

Nat knew what he meant. The dark companion of Eros revolves around it

every six hours; the day of Eros would therefore never be longer than six hours, this without reckoning the revolution of Eros around the sun. But owing to its small size, it was probable that it was bathed in almost perpetual sunshine.

The sweet scent of the flowers, much stronger than of any flowers on earth, filled the air. They walked across the green lawn and entered a jungle path, with bamboos and creeping plants on either side, and huge palmlike trees. Behind them stalked the guards with their ray-rods.

A lake of deepest black disclosed itself. Suddenly Madge uttered a scream and clung to Nat. "Look, look!" she cried. "It's horrible!"

Suddenly Nat realized that the lake swarmed with monsters. They were of crocodilian form, but twice the size of the largest crocodile, and sprawled over one another in the shallows beside the margin. As the party drew near, an enormous monster began waddling on its clawed feet toward them.

A mouth half the length of the creature opened, disclosing a purplish tongue and hideous fangs. Madge screamed again.

"Ah, so fear exists on Earth, too?" asked Axelson blandly. "That makes my conquest sure. I suspected it, and yet I was not sure that science had not conquered it. But there is no cause for fear. A magnetic field protects us. See!"

For the waddling monster suddenly stopped short as if brought up sharply by the bars of a cage, and drew back.

Axelson turned and wheezed in the Moon language—if the gibbering of the dwarfs could be called speech—and one of the guards answered him.

"These primitive dwellers on Eros I have preserved," said Axelson, "as a means of discipline. The Moon animals are afraid of them. I keep a supply of those who have transgressed my laws to feed them. See!"

He turned and pointed. Two guards were bringing a gibbering, screeching, struggling Moon man with them. Despite his strength, he seemed incapable of making any resistance, but his whole body quivered, and his hideous face was contorted with agony of terror.

At a distance of some fifty feet they turned aside into a little bypath through the jungle, reappearing close beside the Lake upon a raised platform. And what happened next happened so swiftly that Nat was unable to do anything to prevent it.

The guards disappeared; the Moon man, as if propelled by some invisible force, moved forward jerkily to the lake's edge. Instantly one of the saurians had seized him in its jaws, and another had wrenched half the body away, and the whole fighting, squirming mass vanished in the depths.

And from far away came the screeching chant of the Moon men, as if in invocation to some hideous deity.

And, moving perceptibly, the huge black orb of Eros's dark satellite crept over the sky, completely covering it.

Axelson stepped forward to where Nat stood, supporting Madge in his arms. The girl had fainted with horror at the scene.

"Your answer Nathaniel Lee," he said softly. "I know you have been postponing the decision. Now I will take the girl, and you shall give me your answer. Will you and these men join me, or will you die as the Moon man died?" He spoke wheezily, as if he, like Nat, had a cold.

And he put his arm around Madge.

Next moment something happened to him that had never happened in his life before. The Black Caesar went down under a well-directed blow to the jaw.

He leaped to his feet trembling with fury and barked a command. Instantly the old guards had hurled themselves forward. And behind them a horde of Moon men came, ambling.

While the guards covered their prisoners with their ray-rods, two Moon men seized each of them, imprisoning him in their unbreakable grasp.

Axelson pointed upward. "When the reign of Erebos is past," he said, "you become food for the denizens of the lake, unless you have agreed to serve me."

And he raised Madge in his arms, laughing as the girl fought and struggled to resist him.

"Madge!" cried Nat, trying to run toward her.

So furious were his struggles that for a moment he succeeded in throwing off the Moon men's grasp. Then he was caught again, and, fighting desperately, was borne off by the dwarfs through the shadows.

They traversed the border of the lake until a small stone building disclosed itself. Nat and the others were thrust inside into pitch darkness. The door clanged; in vain they hurled themselves against it. It was of wood, but it was as

solid as the stone itself, and it did not give an inch for all their struggles.

"Where is your Kommandant?" The whisper seemed in the stone hut itself. "Your Nathaniel Lee. I must speak to him. I am the guard who brought him to the Black Caesar on board the ship."

"I'm here," said Nat. "Where are you?"

"I am in the house of the ray. I am on guard there. I am speaking into the telephone which runs only to where you are. You can speak anywhere in the hut, and I shall hear you."

"Well, what do you want?" asked Nat.

"You love the Earth woman. I remember, when I was a boy, we used to love. I had forgotten. There was a girl in Stamford.... Tell me, is it true that this is the year 2044 and that the proletariat has not yet triumphed?"

"It's true," said Nat. "Those dreams are finished, We're proud of the World Federation. Tell me about Madge Dawes—the Earth woman. Is she safe?"

"He has taken her to his house. I do not think she is harmed. He is ill. He is closely guarded. There are rumors afoot. I do not know."

"What do you want, then?"

"If the Black Caesar dies will you take me back to Earth again? I long so for the old Earth life. I will be your slave, if only I can set foot on Earth before I die."

"Can you rescue us?" Nat held his breath.

"The Moon men are on guard."

"They have no ray-guns and you have."

"The penalty would be terrible. I should be thrown to the monsters."

"Can you get us each a ray-gun? Will you risk it, to get back to Earth?" asked Nat.

A pause. Then, "My friend, I am coming."

Nat heard Benson hissing in his ear, "If we can surprise them, we can get possession of the black ship and return."

"We must get Madge Dawes."

"And smash the mirror," put in Brent.

After that there was nothing to do but wait.

The door clicked open. An indistinct form stood in the entrance. It was already growing light; the dark satellite that eclipsed Eros was passing.

"Hush! I have brought you ray-rods!" It was the old man with whom Nat had spoken on the boat. Under his arm he held five metallic rods, tipped with luminous glass. He handed one to each of the prisoners. "Do you know how to use them?" he asked.

Nat examined his. "It's an old-style rod that was used on earth fifty years ago," he told his men. "I've seen them in museums. It came into use in the Second World War of 1950 or thereabouts. You slip back the safety catch and press this button, taking aim as one did with the pistol. You fellows have seen pistols?"

"My father had an old one," said the chief mate, Barnes.

"How many times can they be fired without reloading?" Nat asked the old guard.

"Ten times; sometimes more; and they were all freshly loaded yesterday."

"Take us to where Axelson is."

"First you must destroy the guards. I sent the one on duty here away on some pretext. But the others may be here at any moment. Talk lower. Are you going to kill them?"

"We must," said Nat.

The old fellow began to sob. "We were companions together. They seized us and imprisoned us together, the capitalists, years ago. I thought the proletariat would have won, and you say it is all different. I am an old man, and life is sad and strange."

"Listen. Is Axelson in the house?" demanded Nat.

"He is in his secret room. I do not know the way. None of us has ever entered it."

"And Madge?"

"She was with him. I do not know anything more." He sank down, groaning, broken.

Nat pushed his way past him. It was fast growing light now. A ray of sunshine shot from beneath the edge of the dark sphere overhead, which still filled almost all the heavens. At that moment the hideous face and squat body of

one of the Moon men came into view at the end of the path. The creature stopped, gibbering with surprise, and then rushed forward, mewing like a cat.

Nat aimed his ray-rod and pressed the button. The streak of light, not quite aimed, in Nat's excitement, sheared off one side of the Moon man's face.

The creature rocked where it stood, raised its voice in a screech, and rushed forward again, arms flailing. And this time Nat got home. The streak passed right through the body of the monster, which collapsed into a heap of calcined carbon.

But its screech had brought the other dwarfs running to the scene. In a moment the path was blocked by a score of the hideous monsters, which, taking in what was happening, came forward in a yelling bunch.

The ray-rods streaked their message of death into the thick of them. Yet so fierce was the rush that some parts got home. Arms, legs, and barrel chests, halves of men, covering the five with that impalpable black powder into which their bodies were dissolving. Nat remembered afterward the horror of a grinning face, apparently loose in the air, and a flailing arm that lashed his chest.

For fifteen seconds, perhaps, it was like struggling with some vampire creatures in a hideous dream. And then, just when it seemed to Nat that he was going mad, he found the path free, and the huddled remnants of the Moon men piled up about him on every side.

He emptied two more ray-shots into the writhing mass, and saw it cease to quiver and then dissolve into the black powder. He turned and looked at his companions. They, too, showed the horror of the strain they had undergone.

"We must kill the guards now," Nat panted. "And then find Madge and save her."

"We're with you," answered Brent, and together the five rushed into the sunlight and the open.

There were no guards on duty at the entrance of the house, and the door stood wide open. Nat rushed through the door at the head of his men. A single guard was in the hall, but he only looked up as they came in. And it was evident that he was in no condition to resist, for he was in the grip of some terrible disease.

His features were swollen so that they were hardly recognizable, and

hoarse, panting breaths came from his lungs. He was so far gone that he hardly registered surprise at the advent of the five.

"Where's Axelson?" demanded Nat.

The guard pointed toward the end of the corridor, then let his arm fall. Nat led his men along the half-dark passage.

At the end of the corridor two more guards were on duty, but one was collapsed upon the floor, apparently unconscious, and the other, making a feeble attempt to draw his ray-rod, crumbled into ashes as Brent fired. The five burst through the door.

They found themselves in the banquet-hall. The remnants of the meal were still upon the table, and three Moon men, looking as if they had been poisoned, were writhing on the floor. At the farther end of the hall was another door.

This gave upon a central hall, with a door in each of its four sides, and a blaze of sunlight coming through the crystal roof. The five stopped, baffled. Then of a sudden Axelson's voice broke the silence—his voice, yet changed almost beyond recognition, hoarse, broken, and gasping:

"Try the doors, Nathaniel Lee. Try each door in turn, and then go back. And know that in an instant I can blast you to nothingness where you stand!"

And suddenly there came Madge's voice, "He can't! He can't, Nat. He's dying, and he knows it. I won't let him, and he hasn't got the strength to move."

"Which door?" cried Nat in desperation.

"None of the doors. They're a trick," came Madge's voice. "Go forward and press the grooved panel upon the wall in front of you."

Nat stepped forward, found the panel, and pressed it. The wall swung open, like two folded doors, revealing another room within, perfectly circular.

It contained a quantity of pieces of apparatus, some glowing with light, some dark, and a radio transmitting set; it was evidently the secret lair of the Black Caesar. And there he was, trapped at last by the mortal illness that had overtaken him!

He was lying upon the couch, his great form stretched out, his features hideously swollen by the same disease that had attacked the guards.

Nat raised his ray-rod, but Axelson feebly put up his hand, and Nat lowered the weapon. And, as the five gathered about the dying man, again Nat felt that

strange sense of pathos and pity for him.

He had never known Earth life, and he was not to be measured by the common standards applicable on Earth.

"Don't fire, Nat," said Madge in a shaky voice. She was seated beside Axelson, and—the wonder of it—she was sponging the foam from his lips and moistening his forehead. She raised a crystal that contained some fluid to his lips, and he drained it greedily.

"So—Earth wins, Nathaniel Lee," whispered Axelson hoarsely. "I am dying. I know it. It is the same dreaded disease that came to the Moon at the time of my father's landing there. Three-fourths of the Moon animals died. It is mortal. The lungs burn away.

"My father told me that on Earth it is not mortal. He called it 'cold'—but I am burning hot."

Then only did Nat understand, and the irony of it made him catch his breath and grit his teeth to check his hysterical laughter. The Black Caesar, the terror of Earth, was dying of a common cold which he himself had given him.

The coryza germ, almost harmless on Earth, among a population habituated to it for countless generations, had assumed the potency of a plague here, where no colds had ever been known—among the Moon men, and even among the guards, after their lifetime in the germless climate of Eros.

"I've failed, Nathaniel Lee," came the Black Caesar's voice. "And yet that hardly troubles me. There is something more that I do not understand. She is a creature like ourselves—with will and reason. She is not like the Moon women. She told me that she did not wish to be queen of the Earth because she did not love me. I do not understand. And so—I am glad to go."

A gasp came from Axelson's throat as he raised his head and tried to speak, but the death-rattle was already in his throat. A slight struggle, and the massive form upon the couch was nothing but inanimate clay.

Madge rose from beside him, and the tears were streaming down her face.

"He wasn't a bad man, Nat," she said. "He was—gentle with me. He didn't understand; that was all. When I refused to be his queen, he was overcome with bewilderment. Oh, Nat, I can never, never write this story for the Universal News Syndicate."

Nat led her, sobbing, from the room.

Soon he succeeded in getting into teleradio communication with Earth. He broadcast the news that the Black Caesar was dead, and that his power for evil was at an end forever.

Then, in the few hours of daylight that remained, he set his men to work to smash the ray outfit that had destroyed China. There was some principle involved which he did not altogether understand, though Brent professed to have a clue to it, but it was evident that, except for the ray, Axelson had possessed no knowledge superior to that of the Earth scientists.

Of the guards, a few were already recovering, principally those of comparatively younger age. Not a Moon man, on the other hand, had survived the epidemic. As soon as Nat had got the guards out of the house, he reduced it to ashes by the aid of an old-fashioned box of phosphoric matches.

As the dark satellite was again creeping over Eros, the black ship set sail.

But of the return journey to the Moon, where they transferred to their own ship, of their landing at New York, and of the triumphal reception that was accorded them, this is no place to speak. Nat's journey with Madge from the center of the city, in what was the old Borough of Westchester, to his home in the suburb of Hartford, was a continual ovation.

Crowds lined the air-route, and every few miles, so thick was the air-traffic, he was forced to hover and address the cheering multitudes. Hartford itself was *en fete*, and across the main road the City Bosses had hung an old-fashioned banner, strung from house to house on either side, bearing the legend: For World President: NATHANIEL LEE!

Nat turned to Madge, who was seated beside him silently. "Ever hear of 'getting married?'" he asked.

"Of course I've heard of it," replied the girl indignantly. "Do you think I'm as dumb as that, Nat Lee? Why, those old-fashioned novels are part of the public schools' curriculum."

"Pity those days can't come back. You ought to be a World Presidentess, you know," said Nat. "I was thinking, if we registered as companionates, I could take you into the White House, and you'd have a swell time there taking X-rays on visiting days."

“Well,” answered Madge slowly. “I never thought of that. It might be worth trying out.”

THE SECOND SATELLITE



By Edmond Hamilton

Norman and Hackett, bulky in their thick flying suits, seemed to fill the little office. Across the room Harding, the field superintendent, contemplated them. Two planes were curving up into the dawn together from the field outside, their motors thunderous as they roared over the building. When their clamor had receded, Harding spoke:

"I don't know which of you two is crazier," he said. "You, Norman, to propose a fool trip like this, or you, Hackett, to go with him."

Hackett grinned, but the long, lean face of Norman was earnest. "No doubt it all sounds a little insane," he said, "but I'm convinced I'm right."

The field superintendent shook his head. "Norman, you ought to be writing fiction instead of flying. A second satellite—and Fellows and the others on it—what the devil!"

"What other theory can account for their disappearance?" asked Norman calmly. "You know that since the new X-type planes were introduced, hundreds of fliers all over Earth have been trying for altitude records in them. Twenty-five miles—thirty—thirty-five—the records have been broken every day. But out of the hundreds of fliers who have gone up to those immense heights, four have never come down nor been seen again!

"One vanished over northern Sweden, one over Australia, one over Lower California, and one, Fellows, himself, right here over Long Island. You saw the globe on which I marked those four spots, and you saw that when connected they formed a perfect circle around the Earth. The only explanation is that the four fliers when they reached a forty-mile height were caught up by some body moving round Earth in that circular orbit, some unknown moon circling Earth inside its atmosphere, a second satellite of Earth's whose existence has until now never been suspected!"

Harding shook his head again. "Norman, your theory would be all right if it were not for the cold fact that no such satellite has ever been glimpsed."

"Can you glimpse a bullet passing you?" Norman retorted. "The two fliers at Sweden and Lower California vanished within three hours of each other, on opposite sides of the Earth. That means that this second satellite, as I've computed, circles Earth once every six hours, and travelling at that terrific

speed it is no more visible to us of Earth than a rifle bullet would be."

"Moving through Earth's atmosphere at such speed, indeed, one would expect it to burn up by its own friction with the air. But it does not, because its own gravitational power would draw to itself enough air to make a dense little atmosphere for itself that would cling to it and shield it as it speeds through Earth's upper air. No, I'm certain that this second satellite exists, Harding, and I'm as certain that it's responsible for the vanishing of those four fliers."

"And now you and Hackett have figured when it will be passing over here and are going up in an X-type yourselves to look for it," Harding said musingly.

"Look for it?" echoed Hackett. "We're not going to climb forty miles just to get a look at the damn thing—we're going to try landing on it!"

"You're crazy sure!" the field superintendent exploded. "If Fellows and those others got caught by the thing and never came down again, why in the name of all that's holy would you two want—" He stopped suddenly. "Oh, I think I see," he said, awkwardly. "Fellows was rather a buddy of you two, wasn't he?"

"The best that ever flew a crippled Nieuport against three Fokkers to pull us out of a hole," said Norman softly. "Weeks he's been gone, and if it had been Hackett and I he'd be all over the sky looking for us—the damned lunatic. Well, we're not going to let him down."

"I see," Harding repeated. Then—"Well, here comes your mechanic, Norman, so your ship must be ready. I'll go with you. It's an event to see two Columbuses starting for another world."

The gray dawn-light over the flying field was flushing to faint rose as the three strode out to where the long X-type stood, its strangely curved wings, enclosed cabin and flat, fan-like tail gleaming dully. Its motor was already roaring with power and the plane's stubby wheels strained against the chocks. In their great suits Norman and Hackett were like two immense ape-figures in the uncertain light, to the eyes of those about them.

"Well, all the luck," Harding told them. "You know I'm pulling for you, but —I suppose it's useless to say anything about being careful."

"I seem to have heard the words," Hackett grinned, as he and Norman shook the field superintendent's hand.

"It's all the craziest chance," Norman told the other. "And if we don't come down in a reasonable time—well, you'll know that our theory was right, and you can broadcast it or not as you please."

"I hope for your sake that you're dead wrong," smiled the official. "I've told you two to get off the Earth a lot of times, but I never meant it seriously."

Harding stepped back as the two clambered laboriously into the cramped cabin. Norman took the controls, the door slammed, and as the chocks were jerked back and the motor roared louder the long plane curved up at a dizzy angle from the field into the dawn. Hackett waved a thick arm down toward the diminishing figures on the field below; then turned from the window to peer ahead with his companion.

The plane flew in a narrow ascending spiral upward, at an angle that would have been impossible to any ship save an X-type. Norman's eyes roved steadily over the instrument as they rose, his ears unconsciously alert for each explosion of the motor. Earth receded swiftly into a great gray concave surface as they climbed higher and higher.

By the time the five-mile height was reached Earth's surface had changed definitely from concave to convex. The plane was ascending by then in a somewhat wider spiral, but its climb was as steady and sure as ever. Frost begin to form quickly on the cabin's windows, creeping out from the edges. Norman spoke a word over the motor's muffled thunder, and Hackett snicked on the electrical radiators. The frost crept back as their warm, clean heat flooded the cabin.

Ten miles—fifteen—they had reached already altitudes impossible but a few years before, though it was nothing to the X-types. As they passed the ten-mile mark, Hackett set the compact oxygen-generator going. A clean, tangy odor filled the cabin as it began functioning. Twenty miles—twenty-two—

After a time Norman pointed mutely to the clock on the instrument board, and Hackett nodded. They were well within their time schedule, having calculated to reach the forty-mile height at ten, the hour when, by its computed orbit, the second satellite should be passing overhead. "—26—27—28—" Hackett muttered the altimeter figures to himself as the needle crept over them.

Glancing obliquely down through the window he saw that Earth was now a

huge gray ball beneath them, white cloud-oceans obscuring the drab details of its surface here and there. "—31—32—" The plane was climbing more slowly, and at a lesser angle. Even the X-type had to struggle to rise in the attenuated air now about them. Only the super-light, super-powered plane could ever have reached the terrific height.

It was at the thirty-four mile level that the real battle for altitude began. Norman kept the plane curving steadily upward, handling it with surpassing skill in the rarefied air. Frost was on its windows now despite the heating mechanism. Slowly the altimeter needle crept to the forty mark. Norman kept the ship circling, its wings tilted slightly, but not climbing, Earth a great gray misty ball beneath.

"Can't keep this height long," he jerked. "If our second satellite doesn't show up in minutes we've had a trip for nothing."

"All seems mighty different up here," was Hackett's shouted comment. "Easy enough to talk down there about hopping onto the thing, but up here—hell, there's nothing but air and mighty little of that!"

Norman grinned. "There'll be more. If I'm right about this thing we won't need to hop it—its own atmosphere will pick us up."

Both looked anxious as the motor sputtered briefly. But in a moment it was again roaring steadily. Norman shook his head.

"Maybe a fool's errand after all. No—I'm still sure we're right! But it seems that we don't prove it this time."

"Going down?" asked Hackett.

"We'll have to, in minutes. Even with its own air-feed the motor can't stand this height for—"

Norman never finished the words. There was a sound, a keen rising, rushing sound of immense power that reached their ears over the motor's roar. Then in an instant the universe seemed to go mad about them: they saw the gray ball of Earth and the sun above skyrocketing around them as the plane whirled madly.

The rushing sound was in that moment thunderous, terrible, and as winds smashed and rocked the plane like giant hands, Hackett glimpsed another sphere that was not the sphere of Earth, a greenish globe that expanded with lightning speed in the firmament beside their spinning plane! The winds stilled;

the green globe changed abruptly to a landscape of green land and sea toward which the plane was falling! Norman was fighting the controls—land and sea were gyrating up to them with dizzy speed—crash!

With that cracking crash the plane was motionless. Sunlight poured through its windows, and great green growths were all around it. Hackett, despite Norman's warning cry, forced the door open and was bursting outside, Norman after him. They staggered and fell, with curious lightness and slowness, on the ground outside, then clutched the plane for support and gazed stupefiedly around them.

The plane had crashed down into a thicket of giant green reeds that rose a yard over their heads, its pancake landing having apparently not damaged it. The ground beneath their feet was soft and soggy, the air warm and balmy, and the giant reeds hid all the surrounding landscape from view.

In the sky the sun burned near one horizon with unusual brilliance. But it was dwarfed, in size, by the huge gray circle that filled half the heavens overhead. A giant gray sphere it was, screened here and there by floating white mists and clouds, that had yet plain on it the outlines of dark continents and gleaming seas. A quaking realization held the two as they stared up at it.

"Earth!" Norman was babbling. "It's Earth, Hackett—above us; my God, I can't believe even yet that we've done it!"

"Then we're on—the satellite—the second satellite!—" Hackett fought for reality. "Those winds that caught us—"

"They were the atmosphere of this world, of the second satellite! They caught us and carried us on inside this smaller world's atmosphere, Hackett. We're moving with it around Earth at terrific speed now!"

"The second satellite, and we on it!" Hackett whispered, incredulously. "But these reeds—it can't all be like this—"

They stepped together away from the plane. The effort sent each of them sailing upward in a great, slow leap, to float down more than a score of feet from the plane. But unheeding in their eagerness this strange effect of the satellite's lesser gravitational power, they moved on, each step a giant, clumsy leap. Four such steps took them out of the towering reeds onto clear ground.

It was a gentle, grassy slope they were on, stretching away along a gray-

green sea that extended out to the astoundingly near horizon on their right. To the left it rose into low hills covered with dense masses of green junglelike vegetation. Hackett and Norman, though, gazed neither at sea or hills for the moment, but at the half-score grotesque figures who had turned toward them as they emerged from the reeds. A sick sense of the unreal held them as they gazed, frozen with horror. For the great figures returning their gaze a few yards from them were—frog-men!

Frog-men! Great mottled green shapes seven to eight feet in height, with bowed, powerful legs and arms that ended in webbed paws. The heads were bulbous ones in which wide, unwinking frog-eyes were set at the sides, the mouths white-lipped and white-lined. Three of the creatures held each a black metal tube-and-handle oddly like a target-pistol.

"Norman!" Hackett's voice was a crescendo of horror. "*Norman!*"

"Back to the plane!" Norman cried thickly. "The plane—"

The two staggered back, but the frog-men, recovering from their own first surprise, were running forward with great hopping steps! The two fliers flung themselves back in a floating leap toward the reeds, but the green monsters were quick after them. A croaking cry came from one and as another raised his tube-and-handle, something flicked from it that burst close beside Norman. There was no sound or light as it burst, but the reeds for a few feet around it vanished!

A hoarse cry from Hackett—the creatures had reached him, grasped him at the edge of the reeds! Norman swerved in his floating leap to strike the struggling flier and frog-men. The scene whirled around him as he fought them, great paws reaching for him. With a sick, frantic rage he felt his clenched fist drive against cold, green, billowy bodies. Croaking cries sounded in his ears; then, Hackett and he were jerked to their feet, held tightly by four of the creatures.

"My God, Norman," panted Hackett, helpless. "What are they—frog-things?—"

"Steady, Hackett. They're the people of the second satellite, it seems; wait!"

One of the armed frog-men approached and inspected them, and then croaked an order in a deep voice. Then, still holding the two tightly, the party of monsters began to move along the slope, skirting the sea's edge. In a few minutes they reached two curious objects resting on the slope. They seemed long black metal boats, slender and with sharp prow and stern. A compact mechanism and control-board filled the prow, while at the stern and sides were long tubes mounted on swivels like machine-guns.

The frog-men motioned Norman and Hackett into one, fastening the two prisoners and themselves into their seats with metal straps provided for the purpose. Four had entered the one boat, the others that of the captives. One at the prow moved his paws over the control-board and with a purring of power the boat, followed by the other, rose smoothly into the air. It headed out over the gray-green sea, land dropping quickly from sight behind, the horizons water-bounded on all sides. From their nearness Norman guessed that this second satellite of Earth's was small indeed beside its mother planet. He had to look up to earth's great gray sphere overhead to attain a sense of reality.

Hackett was whispering beside him, the frog-men watchful. "Norman, it's not real—it can't be real! These things—these boats—intelligent like men—"

The other sought to steady him. "It's a different world, Hackett. Gravitation different, light different, everything different, and evolution here has had a different course. On Earth men evolved to be the most intelligent life-forms, but here the frog-races, it seems."

"But where are they taking us? Could we ever find the plane again?"

"God knows. If we ever get away from these things we might. And we've got to find Fellows, too; I wonder where he is on this world."

For many minutes the two boats raced on at great speed over the endless waters before the watery skyline was broken far ahead by something dark and unmoving. Hackett and Norman peered with intense interest toward it. It seemed at first a giant squat mountain rising from the sea, but as they shot nearer they saw that its outline was too regular, and that colossal as it was in size it was the work of intelligence. They gasped as they came nearer and got a better view of it.

For it was a gigantic dome of black metal rising sheer from the lonely sea,

ten miles if anything in diameter, a third that in greatest height. There was no gate or window or opening of any kind in it. Just the colossal, smooth black dome rearing from the watery plain. Yet the two boats were flashing lower toward it.

"They can't be going inside!" Hackett conjectured. "There's no way in and what could be in there? The whole thing's mad—"

"There's some way," Norman said. "They're slowing—"

The flying-boats were indeed slowing as they dipped lower. They were very near the dome now, its curving wall a looming, sky-high barrier before them. Suddenly the boats dipped sharply downward toward the green sea. Before the two fliers could comprehend their purpose, could do aught more than draw instinctive great breaths in preparation, the two craft had shot down into the waters and were arrowing down through the green depths.

Blinded, flung against his metal strap by the resistance of the waters they ripped through, Norman yet retained enough of consciousness to glimpse beams of light that stabbed ahead from the prows of their rushing boats, to see vaguely strange creatures of the deep blundering in and out of those beams as the boats hurtled forward. The water that forced its way between his lips was fresh, he was vaguely aware, and even as he fought to hold his breath was aware too that the frog-men seemed in no way incommoded by the sudden transition into the water, their amphibian nature allowing them to stay under it far longer than any human could do.

The boats ripped through the waters at terrific speed and in a few seconds there loomed before them the giant metal wall of the great dome, going down into the depths here. Norman glimpsed vaguely that the whole colossal dome rested on a vast pedestal-like mountain of rock that rose from the sea's floor almost to the surface. Then a great round opening in the wall; the boats flashed into it and were hurtling along a water-filled tunnel. Norman felt his lungs near bursting—when the tunnel turned sharply upward and the boats whizzed up and abruptly out of the water-tunnel into air!

But it was not the open air again. They were beneath the gigantic dome! For as Norman and Hackett breathed deep, awe fell on their faces as they took in the scene. Far overhead stretched the dome's colossally curving roof, and far out

on all sides. It was lit beneath that roof by a clear light that the two would have sworn was sunlight. The dome was in effect the roof of a gigantic, illuminated building, and upon its floor there stretched a mighty city.

The city of the frog-men! Their boats were rising up over it and Norman and Hackett saw it clear. Square mile upon square mile of structures stretched beneath the dome, black buildings often of immense size, varying in shape, but all of square, rectangular proportions. Between them moved countless frog-hordes, swirling throngs in streets and squares, and over the roofs darted thick swarms of flying-boats. And at the city's center, in a great, circular, clear space, lay a wide, round, green pool—the opening of the water-tunnel up through which they had come.

Norman pointed down toward it. "That's your answer!" he cried. "The only entrance to this frog-city is from the sea, up through that water-tunnel!"

"Good God, an amphibian city!" Hackett was shaken, white-faced.

The two boats were driving quickly over the city, through the swarming craft. Norman glimpsed towering buildings that might have been palaces, temples, laboratories. They slowed and dipped toward one block-like building not far from the water-tunnel's opening. Armed frog-guards were on its roof, and other boats rested there. The two came to rest and the two captives were jerked out, the guards seizing them.

Half-dragged and half-floating they were led toward an opening in the roof from which a stair led downward. They passed down thus into the building's interior, lit by many windows. Norman glimpsed long halls ending in barred doors, guards here and there. Tube-lines ran along the walls and somewhere machines were throbbing dully. They came at last to a barred door whose guard opened it at the croaking order of the frog-men who held the two, and they were thrust inside, as the door clanged. They turned, and exclaimed in amazement. The room held fully a half-hundred men!

They were men such as the two fliers had never seen before, like humans except that their skins were a light green instead of the normal white and pink. They were dressed in dark short tunics, and kept talking to each other in a tongue quite unintelligible to Norman and Hackett. They came closer, flocking curiously around the two men, with a babel of voices quite meaningless to the two. Then one of the men uttered an exclamation, and all turned.

The barred door had swung open and a half-dozen frog-guards entered, followed by two frog-men carrying a square little mechanism from which tubing led back out through the door.

"Norman—these men—" Hackett was whispering rapidly. "If there are men in this world too, it may be that—"

"Quiet, Hackett—look at what they're doing."

The two frog-men had set their mechanism in place and then croaked out a brief word or order. Slowly, reluctantly, one of the green men moved toward them. Quickly they removed a metal disk fastened to his arm, exposing a small orifice like an unhealed wound. Onto this they fastened a suckerlike object from which a transparent tube led back through the mechanism. The machine hummed and at once a red stream pulsed through the tube and back through the mechanism. The man to whom it was attached was growing rapidly pale!

Norman, sick with horror, clutched his companion. "Hackett—these frog-men are sucking his blood from him!"

"Good God! And look—they're doing it with another!"

"All of these men—kept prisoners to furnish them with blood. It must be the damned creatures' food! And we here with the others—"

A common horror shook the two. It did not seem to affect the green men in the room, though, who advanced to the mechanism one by one with a reluctant air as of cows unwilling to be milked. Each was attached to the mechanism by the sucking disk on his arm, and out of each the blood poured through the tube. The metal disk was replaced on his arm then and he went back to the others. Norman saw that the frog-men took only from each an amount of blood that they could lose and yet live, since, though each came back pale and weak from the mechanism, they were able to walk.

"It must be their food—human blood!" Norman repeated. "They may have thousands on thousands of humans penned up like this, like so many herds of cows, and perhaps they live entirely on the life-blood they milk from them. Human cows—God!"

"Norman—look—they're calling to us!"

The two stiffened. All the others in the room had taken their turn at the

blood-sucking mechanism and now the frog-men croaked their order to the two fliers. They had forgotten their own predicament in the horror of the scene, but now it became real to them. They backed against the room's wall, quivering, dangerous.

The frog-guards came forward to drag them to the machine. A webbed paw was outstretched but Hackett with a wild blow drove the frog-man back and downward. The frog-guards leaped, and Norman and Hackett struck them back with all the greater strength the lesser gravitation gave them. The room was in an uproar, the green men shouting hoarsely and seeming on the point of rushing to their aid.

But the menacing force-pistols of the other frog-guards held back the shouting men and in moments the two fliers were overpowered by sheer weight of frog-bodies. Norman felt himself dragged to the machine.

Pain needled his upper arm as an incision was made. He felt the sucking-disk attached; then the machine hummed, and a sickening nausea swept him as the blood drained from his body. Held tightly by the guards he went dizzy, weak, but at last felt the sucker removed and a metal disk fastened over the incision. He was jerked aside and Hackett, his face deathly white, was dragged into his place. In a moment some of the latter's blood had been pumped from him also.

The machine was withdrawn, Norman and Hackett were released, and the frog-men, with their black force-pistols watchfully raised, withdrew, the door clanging. The room settled back to quietness, the green men stretching in lassitude on the metal bunks around it. The two fliers crouched down near the door, shuddering nausea and weakness still holding them.

Norman found that Hackett was laughing weakly. "To think that twenty-four hours ago I was in New York," he half-laughed, half-sobbed. "On Earth—Earth —"

The other gripped his arm. "It's horrible, Hackett, I know. But it isn't instant death, and we've still a chance to escape. Hell, can damn frog-men keep us here? Where's your nerve, man?"

A voice beside them made them turn in amazement. "You are men from Earth?" it asked, in queerly accented English. "From Earth?"

Astonishment held them as they saw who spoke. It was one of the green men in the room, who had settled down by their side. A tall figure with superb muscles and frank, clean countenance, his dark eyes afire with eagerness.

"English?" Norman exclaimed. "You know English—you understand me?"

The other showed his teeth in a smile. "I know, yes. I'm Sarja, and I learned to speak it from Fallas, in my city, before the Ralas caught me."

"Fallas—" Norman repeated, puzzled; then suddenly he flamed. "By God, he means Fellows!"

"Fallas, yes," said the other. "From the sky he fell into our city in a strange flying-boat that was smashed. He was hurt but we cared for him, and he taught me his speech, which I heard you talking now."

"Then Fellows is in your city now?" asked Hackett eagerly. "Where is that?"

"Across this sea—back in the hills," the other waved. "It is far from the sea but I was rash one day and came too near the water in my flying-boat. The Ralas were out raiding and they saw me, caught me, and brought me here. No escape now, until I die."

"The Ralas—you mean these frog-men?" Norman asked.

Sarja nodded. "Of course. They are the tyrants and oppressors of this world. Our little world is but a tenth or less the size of your great Earth which it circles, but it has its lands and rivers, and this one great fresh-water sea into which the latter empty. In this sea long ago developed the Ralas, the great frog-men who acquired such intelligence and arts that they became lords of this world.

"Through the centuries, while on the land our races of green men have been struggling upward, the Ralas have oppressed them. Long ago the Ralas left all their other cities to build this one great amphibian city at the sea's center. Entrance to it is only by the water-tunnel from without, and being frog-people entrance thus is easy for them since they can move for many minutes under water, though they drown like any other breathing animal if kept under too long. Humans dare not try to enter it thus by the water-tunnel, since, before they could find it and make their way up through it, they would have drowned.

"So the Ralas have ruled from this impregnable amphibian city. Its colossal

metal dome is invulnerable to ordinary attack, and though solid and without openings it is always as light beneath the dome here as outside, since the Ralas' scientists contrived light-condensers and conductors that catch light outside and bring it in to release inside. So when it is day outside the sunlight is as bright here, and when night comes the Earth-light shines here the same as without.

"From this city their raiding parties have gone out endlessly to swoop down on the cities of us green men. Since we learned to make flying-boats like theirs, with molecular-motors, and to make the guns like theirs that fire shells filled with annihilating force, we have resisted them stoutly but their raids have not ceased. And always they have brought their prisoners back in to this, their city.

"Tens of thousands of green men they have prisoned here like us, for the sole purpose of supplying them with blood. For the Ralas live on this blood alone, changing it chemically to fit their own bodies and then taking it into their bodies. It eliminates all necessity for food here for them. Every few days they drain blood from us, and since we are well fed and cared for to keep us good blood-producers, we will be here for a long time before we die."

"But haven't you made any attempt to get out of here—to escape?" Norman asked.

Sarja smiled. "Who could escape the city of the Ralas? In all recorded history it has never been done, for even if by some miracle you got a flying-boat, the opening of the water-tunnel that leads outward is guarded always."

"Guards or no guards, we're going to try it and not sit here to furnish blood for the Ralas," Norman declared. "Are you willing to help, to try to get to Fellows and your city?"

The green man considered. "It is hopeless," he said, "but as well to die beneath the force-shells of the Ralas as live out a lifetime here. Yes, I will help, though I cannot see how you expect to escape even from this room."

"I think we can manage that," Norman told him. "But first—not a word to these others. We can't hope to escape with them all, and there is no knowing what one might not betray us to the frog-men."

He went on then to outline to the other two the idea that had come to him. Both exclaimed at the simpleness of the idea, though Sarja remained somewhat doubtful. While Hackett slept, weak still from his loss of blood, Norman had the

green man scratch on the metal floor as well as possible a crude map of the satellite's surface, and found that the city, where Fellows was, seemed some hundreds of miles back from the sea.

While they talked, the sunlight, apparently sourceless, that came through the heavily barred windows of the room faded rapidly, and dusk settled over the great amphibian city beneath the giant dome, kept from total darkness by a silvery pervading light that Norman reflected must be the light from Earth's great sphere. With the dusk's coming the activities in the frog-city lessened greatly.

With dusk, too, frog-guards entered the room bearing long metal troughs filled with a red jellylike substance, that they placed on racks along the wall. As the guards withdrew the men in the room rushed toward the troughs, elbowing each other aside and striking each other to scoop up and eat as much of the red jelly as possible. It was for all the world like the feeding of farm-animals, and Hackett and Norman so sickened at the sight that they had no heart to try the food. Sarja, though, had no such scruples and seemed to make a hearty meal at one of the troughs.

After the meal the green men sought the bunks and soon were stretched in sonorous slumber. It was, Norman reflected, exactly the existence of domesticated animals—to eat and sleep and give food to their masters. A deeper horror of the frog-men shook him, and a deeper determination to escape them. He waited until all in the room were sleeping before beckoning to Sarja and Hackett.

"Quiet now," he whispered to them. "If these others wake they'll make such a clamor we won't have a chance in the world. Ready, Sarja?"

The green man nodded. "Yes, though I still think such a thing's impossible."

"Probably is," Norman admitted. "But it's the one chance we've got, the immensely greater strength of our Earth-muscle that the frog-men must have forgotten when they put us in here."

They moved silently to the room's great barred door, outside which a frog-guard paced. They waited until he had passed the door and on down the hall, then Norman and Hackett and Sarja grasped together one of the door's vertical

bars. It was an inch and a half in thickness, of solid metal, and it seemed ridiculous that any men could bend it by the sheer strength of their muscles.

Norman, though, was relying on the fact that on the second satellite, with its far lesser gravitational influence, their Earth-muscles gave them enormous strength. He grasped the bar, Hackett and Sarja gripping it below him, and then at a whispered word they pulled with all their force. The bar resisted and again, with sweat starting on their foreheads, they pulled. It gave a little.

They shrank back from it as the guard returned, moving past. Then grasping the bar again they bent all their force once more upon it. Each effort saw it bending more, the opening in the door's bars widening. They gave a final great wrench and the bent bar squealed a little. They shrank back, appalled, but the guard had not heard or noticed. He moved past it on his return along the hall, and no sooner was past it than Norman squeezed through the opening and leaped silently for the great frog-man's back.

It went down with a wild flurry of waving webbed paws and croaking cries, stilled almost instantly by Norman's terrific blows. There was silence then as Hackett and Sarja squeezed out after him, the momentary clamor of the battle having aroused no one.

The three leaped together toward the stairs. In two great floating leaps they were on the floor above, Hackett and Norman dragging Sarja between them. They were not seen, were sailing in giant steps up another stair, hopes rising high. The last stair—the roof-opening above; and then from beneath a great croaking cry swelled instantly into chorus of a alarmed shouts.

"They've found the door—the guard!" panted Hackett.

They were bursting out onto the roof. Frog-guards were on it who came in a hopping rush toward them, force-pistols raised. But a giant leap took Hackett among them, to amaze them for a moment with great flailing blows. Sarja had leaped for the nearest flying-boat resting on the roof, and was calling in a frantic voice to Norman and Hackett. Norman was turning toward Hackett, the center of a wild combat, but the latter emerged from it for a brief second to motion him frantically back.

"No use, Norman—get away—get away!" he cried hoarsely, frenziedly.

"Hackett—for God's sake—!" Norman half-leaped to the other, but an arm

caught him, pulled him desperately onto the boat's surface. It was Sarja, the long craft flying over the roof beneath his control.

"They come!" he panted. "Too late now—" Frog-men were pouring up onto the roof from below. Sarja sent the craft rocketing upward, as Hackett gestured them away for a last frantic time before going down beneath the frog-men's onslaught.

The roof and the combat on it dropped back and beneath them like a stone as their craft ripped across the silvery dusk over the mighty frog-city. They were shooting toward the city's center, toward the green pool that was the entrance to the water-tunnel, while behind and beneath an increasing clamor of alarm spread swiftly. Norman raged futilely.

"Hackett—Hackett! We can't leave him—"

"Too late!" Sarja cried. "We cannot help him but only be captured again. We escape now and come back—come back—"

The truth of it pierced Norman's brain even in the wild moment. Hackett had fought and held back the frog-guards only that they might escape. He shouted suddenly.

"Sarja—the water-tunnel!" A half-dozen boats with frog-guards on them were rising round it in answer to the alarm!

"The force-gun!" cried the green man. "Beside you—!"

Norman whirled, glimpsed the long tube on its swivel beside him, trained it on the boats rising ahead as they rocketed nearer. He fumbled frantically at a catch at the gun's rear, then felt a stream of shells flicking out of it. Two of the boats ahead vanished as the shells released their annihilating force, another sagged and fell. From the remaining three invisible force-shells flicked around them, but in an instant Sarja had whirled the boat through them and down into the water-tunnel!

Norman clung desperately to his seat as the boat flashed down through the waters, and then, as Sarja sent it flying out through the great tunnel's waters, glimpsed, close behind, the beams of the three Rala boats as they pursued them through the tunnel, overtaking them. Could the force-shells be fired under water? Norman did not know, but desperately he swung the force-gun back as they rushed through the waters, and pressed the catch. An instant later beams

and boats behind them in the tunnel vanished.

His lungs were afire; it seemed that he must open them to the strangling water. The boat was ripping the waters at such tremendous speed that he felt himself being torn from his hold on it. Pain seemed poured like molten metal through his chest—he could hold out no longer; and then the boat stabbed up from the waters into clear air!

Norman panted, sobbed. Behind them rose the colossal metal dome of the frog-city, gleaming dully in the silvery light that flooded the far-stretching seas. That light poured down from a stupendous silver crescent in the night skies. Norman saw dully the dark outlines on it before he remembered. Earth! He laughed a little hysterically. Sarja was driving the flying-boat out over the sea and away from the frog-city at enormous speed. At last he glanced back. Far behind them lay the great dome and up around it gleaming lights were pouring, lights of pursuing Rala boats.

"We escape," Sarja cried, "the city of the Ralas, from which none ever before escaped!"

Remembrance smote Norman. "Hackett! Held off those frog-men so we could get away—we'll come back for him, by God!"

"We come back!" said Sarja. "We come back with all the green men of this world to the Ralas' city, yes! I know what Fallas has planned."

"Can you find your way to him—to your city?" Norman asked.

Sarja nodded, looking upward. "Before the next sun has come and gone we can reach it."

The boat flew onward, and the great dome and the searching lights around it dropped beneath the horizon. Norman felt the warm wind drying his drenched garments as they rushed onward. Crouched on the boat he gazed up toward the silver crescent of Earth sinking toward the horizon ahead. That meant, he told himself, that the satellite turned slowly on its axis as it whirled around Earth. It came to him that its night and day periods must be highly irregular.

When the sun climbed from the waters behind them they were flying still over a boundless waste of waters, but soon they sighted on the horizon ahead the thin green line of land. Sarja slowed as they reached it, took his bearings, and sent the craft flying onward.

They passed over a green coastal plain and then over low hills joined in long chains and mantled by dense and mighty jungles, towering green growths of unfamiliar appearance to Norman. He thought he glimpsed, more than once, huge beastlike forms moving in them. He did see twice in the jungles great clearings where were fair-sized cities of bright-green buildings, a metal tower rising from each. But when he pointed to them Sarja shook his head.

At last, as they passed over another range of hills and came into sight of a third green city with its looming tower, the other pointed, his face alight.

"My city," he said. "Fallas there."

Fellows! Norman's heart beat faster.

They shot closer and lower and he saw that the buildings were obviously green to lend them a certain protective coloration similar to that of the green jungles around them. The tower with its surmounting cage puzzled him though, but before he could ask Sarja concerning it his answer came in a different way. A long metal tube poked slowly out of the cage on the tower's top and sent a hail of force-shells flicking around them.

"They're firing on us!" Norman cried. "This can't be your city!"

"They see our black boat!" Sarja exclaimed. "They think we're Rala raiders and unless we let them know they'll shoot us out of the air! Stand up—wave to them—!"

Both Norman and Sarja sprang to their feet and waved wildly to those in the tower-cage, their flying-boat drifting slowly forward. Instantly the force-shells ceased to hail toward them, and as they moved nearer a sirenlike signal broke from the cage. At once scores of flying-boats like their own, but glittering metal instead of black, shot up from the city where they had lain until now, and surrounded them.

As Sarja called in his own tongue to them the green men on the surrounding boats broke into resounding cries. They shot down toward the city, Norman gazing tensely. Great crowds of green men in their dark tunics had swarmed out into its streets with the passing of the alarm, and their craft and the others came to rest in an open square that was the juncture of several streets.

The green men that crowded excitedly about Norman and Sarja gave way to a half-dozen hurrying into the square from the greatest of the buildings facing

on it. All but one were green men like the others. But that one—the laughing-eyed tanned face—the worn brown clothing, the curious huge steps with which he came—Norman's heart leapt.

"Fellows!"

"Great God—Norman!" The other's face was thunderstruck. "Norman—how by all that's holy did you get here?"

Norman, mind and body strained to the breaking point, was incoherent. "We guessed how you'd gone—the second satellite, Fellows—Hackett and I came after you—taken to that frog-city—"

As Norman choked the tale, Fellows' face was a study. And when it was finished he swallowed, and gripped Norman's hand viselike.

"And you and Hackett figured it out and came after me—took that risk? Crazy, both of you. Crazy—"

"Fellows, Hackett's still there, if he's alive! In the Rala city!"

Fellows' voice was grim, quick. "We'll have him out. Norman, if he still lives. And living or dead, the Ralas will pay soon for this and for all they've done upon this world in ages. Their time nears—yes."

He led Norman, excited throngs of the green men about them, into the great building from which he had emerged. There were big rooms inside, workshops and laboratories that Norman but vaguely glimpsed in passing. The room to which the other led him was one with a long metal couch. Norman stretched protestingly upon it at the other's bidding, drifted off almost at once into sleep.

He woke to find the sunlight that had filled the room gone and replaced by the silvery Earth-light. From the window he saw that the silver-lit city outside now held tremendous activity, immense hordes of green men surging through it with masses of weapons and equipment, flying-boats pouring down out of the night from all directions. He turned as the door of the room clicked open behind him. It was his old friend Fellows.

"I thought you'd be awake by now, Norman. Feeling fit?"

"As though I'd slept a week," Norman said, and the other laughed his old care-free laugh.

"You almost have, at that. Two days and nights you've slept, but it all adds up to hardly more than a dozen hours."

"This world!" Norman's voice held all his incredulity. "To think that we should be on it—a second satellite of Earth's—it seems almost beyond belief."

"Sometimes it seems so to me, too," Fellows said thoughtfully. "But it's not a bad world—not the human part of it, at least. When this satellite's atmosphere caught me and pitchforked me down among these green men, smashing the plane and almost myself, they took care of me. You say three others vanished as I did? I never heard of them here; they must have crashed into the sea or jungles. Of course, I'd have got back to Earth on one of these flying-boats if I'd been able, but their molecular power won't take them far from this world's surface, so I couldn't.

"As it was, the green men cared for me, and when I found how those frog-men have dominated this world for ages, how that city of the Ralas has spread endless terror among the humans here, I resolved to smash those monsters whatever I did. I taught some of the green men like Sarja my own speech, later learning theirs, and in the weeks I've been here I've been working out a way to smash the Ralas.

"You know that amphibian city is almost impregnable because humans can hardly live long enough under the water to get into it, let alone fight under water as the frog-men can. To meet them on even terms the green men needed diving-helmets with an oxygen supply. They'd never heard of such an idea, too afraid of the sea ever to experiment in it, but I convinced them and they've made enough helmets for all their forces. In them they can meet the Ralas under water on equal terms.

"And there's a chance we can destroy that whole Rala city with their help. It's built on a giant pedestal of rock rising from the sea's floor, as you saw, and I've had some of the green men make huge force-shells or force-bombs that ought to be powerful enough to split that pedestal beneath the city. If we can get a chance to place those bombs it may smash the frog-men forever on this world. But one thing is sure: we're going to get Hackett out if he still lives!"

"Then you're, going to attack the Rala city now?" Norman cried.

Fellows nodded grimly. "While you have slept all the forces of the green men on this world have been gathering. Your coming has only precipitated our plans, Norman—the whole soul of the green races has been set upon this attack

for weeks!"

Norman, half bewildered at the swiftness with which events rushed upon him, found himself striding with Fellows in great steps out through the building into the great square. It was shadowed now by mass on mass of flying-boats, crowded with green men, that hung over it and over the streets. One boat, Sarja at its controls, waited on the ground and as they entered and buckled themselves into the seats the craft drove up to hang with the others.

A shattering cheer greeted them. Norman saw that in the silvery light of Earth's great crescent there stretched over the city and surrounding jungle now a veritable plain of flying-boats. On each were green men and each bristled with force-guns, and had as many great goggled helmets fastened to it as it had occupants. He glimpsed larger boats loaded with huge metal cylinders—the force-bombs Fellows had mentioned.

Fellows rose and spoke briefly in a clear voice to the assembled green men on their craft, and another great shout roared from them, and from these who watched in the city below. Then as he spoke a word, Sarja sent their craft flying out over the city, and the great mass of boats, fully a thousand in number, were hurtling in a compact column after them.

Fellows leaned to Norman as the great column of purring craft shot on over the silver-lit jungles. "We'll make straight for the Rala city and try setting into it before they understand what's happening."

"Won't they have guards out?"

"Probably, but we can beat them back into the city before their whole forces can come out on us. That's the only way in which we can get inside and reach Hackett. And while we're attacking the force-bombs can be placed, though I don't rely too much on them."

"If the attack only succeeds in getting us inside," Norman said, grim-lipped, "we'll have a chance—"

"It's on the knees of the gods. These green men are doing an unprecedented thing in attacking the Ralas, the masters of this world, remember. But they've got ages of oppression to avenge; they'll fight."

The fleet flew on, hills and rivers a silver-lit panorama unreeling beneath them. Earth's crescent sank behind them, and by the time they flashed out over

the great fresh-water sea, the sun was rising like a flaming eye from behind it. Land sank from sight behind and the green men were silent, tense, as they saw stretching beneath only the gray waters that for ages had been the base of the dread frog-men. But still the fleet's column raced on.

At last the column slowed. Far ahead the merest bulge broke the level line where sky and waters met. The amphibian city of the Ralas! At Fellows' order-the flying-boats sank downward until they moved just above the waters. Another order made the green hosts don the grotesque helmets. Norman found that while cumbersome their oxygen supply was unfailing. They shot on again at highest speed, but as the gigantic black dome of the frog-city grew in their vision there darted up from around it suddenly a far-flung swarm of black spots.

"Rala boats!"

The muffled exclamation was Fellows'. There needed now no order on his part, though. Like hawks, leaping for prey, the fleet of the green men sprang through the air. Norman, clutching the force-gun between his knees, had time only to see that the Rala craft were a few hundred in number and that, contemptuous of the greater odds that favored these humans they had so long oppressed, they were flying straight to meet them. Then the two fleets met—and were spinning side by side above the waters.

Norman saw the thing only as a wild whirl of Rala boats toward and beside them, great green frog-men crowding the craft, their force-guns hailing shells. Automatically, with the old air-fighting instinct, his fingers had pressed the catch of the gun between his knees and as its shells flicked toward the rushing boats he saw areas of nothingness opening suddenly in their mass, shells striking and exploding in annihilating invisibility there and in their own fleet.

The two fleets mingled and merged momentarily, the battle becoming a thing of madness, a huge whirl of black and glittering flying-boats together, striking shells exploding nothingness about them. The Ralas were fighting like demons.

The merged, terrific combat lasted but moments; could last but moments. Norman, his gun's magazine empty, seemed to see the mass of struggling ships splittering, diverging; then saw that the black craft were dropping, plummeting downward toward the waves! The Ralas, stunned by that minute of terrific

combat, were fleeing. Muffled cries and cheers came from about him as the glittering flying-boats of the green men shot after them. They crashed down into the waters and curved deeply into their green-depths, toward the gigantic dome.

Ahead the Rala boats were in flight toward their city, and now their pursuers were like sharks striking after them. There in the depths the force-guns of black and glittering boats alike were spitting, and giant waves and underwater convulsions rocked pursued and pursuers as the exploding shells annihilated boats and water about them. The tunnel! Its round opening yawned in the looming wall ahead, and Norman saw the Rala craft, reduced to scores in number, hurtling into it, to rouse all the forces of the great amphibian city. Their own boats were flashing into the opening after them. He glimpsed as he glanced back for a moment the larger craft with the great force-bombs veering aside behind them.

It was nightmare in the water-tunnel. Flashing beams of the craft ahead and waters that rocked and smashed around them as in flight the Ralas still rained back force-shells toward them in a chaos of action. Once the frog-men turned to hold them back in the tunnel, but by sheer weight the rushing ships of the green men crashed them onward. Boats were going into nothingness all around them. A part of Norman's brain wondered calmly why they survived even while another part kept his gun again working, with refilled magazine. Fellows and Sarja were grotesque shapes beside him. Abruptly the tunnel curved upward and as they flashed up after the remaining Rala craft their boats ripped up into clear air! They were beneath the giant dome!

The frog-men chased inward spread out in all directions over their mighty, swarming city and across it a terrific clamor of alarm ran instantly as the green men emerged after them! Norman saw flying-boats beginning to rise across all the city and realized that moments would see all the immense force of the Ralas, the thousands of craft they could muster, pouring upon them. He pointed out over the city to a block-like building, and shouted madly through his helmet to Fellows and Sarja:

"Hackett!"

But already Sarja had sent their craft whirling across the city toward the structure, half their fleet behind it, with part still emerging from the water-

tunnel. Rala boats rose before them, but nothing could stop them now, their force-shells raining ahead to clear a path for their meteor-flight. They shot down toward the block-structure, and Norman, half-crazed by now, saw that to descend and enter was suicide in the face of the frog-forces rising now over all the city. He cried to Fellows, and with two of the guns as they swooped lower they sprayed force-shells along the building's side.

The shells struck and whiffed away the whole side, exposing the level on the building's interior. Out from it rushed swarms of crazed green men, sweeping aside the frog-men guards, while far over the city the invading craft were loosing shells on the block-like buildings that held the prisoners, tens of thousands of them swarming forth. In the throng below as they raced madly forth Norman saw one, and shouted wildly. The one brown garbed figure looked up, saw their boat swooping lower, and leaped for it in a tremendous forty-foot spring that brought his fingers to its edge. Norman pulled him frenziedly up.

"Norman!" he babbled. "In God's name—Fellows—!"

"That helmet, Hackett!" Fellows flung at him. "My God, look at those prisoners—Norman!"

The countless thousands of green men released from the buildings whose walls had vanished under the shells of the invaders had poured forth to make the amphibian city a chaos of madness. Oblivious to all else they were throwing themselves upon the city's crowding frog-men in a battle whose ferocity was beyond belief, disregarding all else in this supreme chance to wreak vengeance on the monstrous beings who had fed upon their blood. In the incredible insanity of that raging fury the craft of the green men hanging over the city were all but forgotten.

Suddenly the city and the mighty dome over it quivered violently, and then again. There came from beneath a dull, vast, grinding roar.

"The great force-bombs!" Fellows screamed. "They've set them off—the city's sinking—out of here, for the love of God!"

The boat whirled beneath Sarja's hands toward the pool of the water-tunnel, all their fleet rushing with them. The grinding roar was louder, terrible; dome and city were shaking violently now; but in the insensate fury of their struggle the frog-men and their released prisoners were hardly aware of it. The whole

great dome seemed sinking upon them and the city falling beneath it as Sarja's craft ripped down into the tunnel's waters, and then out, at awful speed, as the great tunnel's walls swayed and sank around them! They shot out into the green depths from it to hear a dull, colossal crashing through the waters from behind as the great pedestal of rock on which the city had stood, shattered by the huge force-bombs, collapsed. And as their boats flashed up into the open air they saw that the huge dome of the city of the Ralas was gone.

Beneath them was only a titanic whirlpool of foaming waters in which only the curved top of the settling dome was visible for a moment as it sank slowly and ponderously downward, with a roar as of the roar of falling worlds. Buckling, collapsing, sinking, it vanished in the foam-wild sea with all the frog-men who for ages had ruled the second satellite, and with all those prisoners who had at the last dragged them down with them to death! Ripping off their helmets, with all the green men shouting crazily about them, Norman and Fellows and Hackett stared down at the colossal maelstrom in the waters that was the tomb of the masters of a world.

Then the depression's sides collapsed, the waters rushing together ... and beneath them was but troubled, tossing sea....

Earth's great gray ball was overhead again and the sun was sinking again to the horizon when the three soared upward in the long, gleaming plane, its motor roaring. Norman, with Hackett and Fellows crowding the narrow cabin beside him, waved with them through its windows. For all around them were rising the flying-boats of the green men.

They were waving wildly, shouting their farewells, Sarja's tall figure erect at the prow of one. Insistent they had been that the three should stay, the three through whom the monstrous age-old tyranny of the frog-men had been lifted, but Earth-sickness was on them, and they had flown to where the plane lay still unharmed among the reeds, a hundred willing hands dragging it forth for the take-off.

The plane soared higher, motor thundering, and they saw the flying-boats sinking back from around them. They caught the wave of Sarja's hand still from the highest, and then that, too, was gone.

Upward they flew toward the great gray sphere, their eyes on the dark

outlines of its continents and on one continent. Higher—higher—green land and gray tea receding beneath them; Hackett and Fellows intent and eager as Norman kept the plane rising. The satellite lay, a greenish globe, under them. And as they went higher still a rushing sound came louder to their ears.

"The edge of the satellite's atmosphere?" Fellows asked, as Norman nodded.

"We're almost to it—here we go!"

As he shot the plane higher, great forces smote it, gray Earth and green satellite and yellow sun gyrating round it as it reeled and plunged. Then suddenly it was falling steadily, gray Earth and its dark continent now beneath, while with a dwindling rushing roar its second satellite whirled away above them, passing and vanishing. Passing as though, to Norman it seemed, all their strange sojourn on it were passing; the frog-men and their mighty city, Sarja and their mad flight, the green men and the last terrific battle; all whirling away—whirling away.

SILVER DOME



By Harl Vincent

In a secluded spot among the hills of northern New Jersey stood the old DeBost mansion, a rambling frame structure of many wings and gables that was well-nigh hidden from the road by the half-mile or more of second-growth timber which intervened. High on the hill it stood, and it was only by virtue of its altitude that an occasional glimpse might be obtained of weatherbeaten gable or partly tumbled-down chimney. The place was reputed to be haunted since the death of old DeBost, some seven years previously, and the path which had once been a winding driveway was now seldom trod by human foot.

It was now two years since Edwin Leland bought the estate for a song and took up his residence in the gloomy old house. And it had then been vacant for five years since DeBost shot himself in the northeast bedroom. Leland's associates were sure he would repent of his bargain in a very short time, but he stayed on and on in the place, with no company save that of his man-servant, an aged hunch-back who was known to outsiders only as Thomas.

Leland was a scientist of note before he buried himself in the DeBost place, and had been employed in the New York research laboratory of one of the large electrical manufacturers, where he was much admired and not a little envied by his fellow workers. These knew almost nothing of his habits or of his personal affairs, and were much surprised when he announced one day that he had come into a sizable fortune and was leaving the organization to go in for private research and study. Attempts to dissuade him were of no avail, and the purchase of the DeBost property followed, after which Leland dropped from sight for nearly two years.

Then, on a blustery winter day, a strange telephone call was received at the laboratory where he had previously worked. It was from old Thomas, out there in the DeBost mansion, and his quavering voice asked for Frank Rowley, the genial young engineer whose work had been most closely associated with Leland's.

"Oh, Mr. Rowley," wailed the old man, when Frank responded to the call, "I wish you would come out here right away. The master has been acting very queerly of late, and to-day he has locked himself in his laboratory and will not answer my knocks."

"Why don't you break in the door?" asked Frank, looking through the window at the snow storm that still raged.

"I thought of that, Mr. Rowley, but it is of oak and very thick. Besides, it is bound with steel or iron straps and is beyond my powers."

"Why not call the police?" growled Frank. He did not relish the idea of a sixty or seventy mile drive in the blizzard.

"Oh—no—no—no!" Old Thomas was panicky at the suggestion. "The master told me he'd kill me if I ever did that."

Before Frank could formulate a reply, there came a sharp gasp from the other end of the line, a wailing cry and a thud as of a falling body; then silence. All efforts to raise Leland's number merely resulted in "busy" or "line out of order" reports.

Frank Rowley was genuinely concerned. Though he had never been a close friend of Leland's, the two had worked on many a knotty problem together and were in daily contact during the nearly ten years that the other man had worked in the same laboratory.

"Say, Tommy," said Frank, replacing the receiver and turning to his friend, Arnold Thompson, who sat at an adjoining desk, "something has happened out at Leland's place in Sussex County. Want to take a drive out there with me?"

"What? On a day like this? Why not take the train?"

"Don't be foolish, Tommy," said Frank. "The place is eight miles from the nearest station, which is a flag stop out in the wilds. And, even if you could find a cab there—which you couldn't—there isn't a taxi driver in Jersey who'd take you up into those mountains on a day like this. No, we'll have to drive. It'll be okay. I've got chains on the rear and a heater in the old coupe, so it shouldn't be so bad. What do you say?"

So Tommy, who usually followed wherever Frank led, was prevailed upon to make the trip. He had no particular feeling for Leland, but he sensed an adventure, and, in Frank's company, he could ask for no more.

Frank was a careful driver, and three hours were required to make the sixty-mile journey. Consequently, it was late in the afternoon when they arrived at the old DeBost estate. It had stopped snowing, but the drifts were deep in spots, and Frank soon found that the car could not be driven through the winding path

from the road to the house. So they left it half buried in a drift and proceeded on foot.

It was a laborious task they had undertaken, and, by the time they set foot on the dilapidated porch, even Frank, husky and athletic as was his build, was puffing and snorting from his exertions. Little Tommy, who tipped the scales at less than a hundred and twenty, could hardly speak. They both were wet to the waist and in none too good humor.

"Holy smoke!" gasped Tommy, stamping the clinging snow from his sodden trouser legs and shoes, "if it snows any more, how in Sam Hill are we going to get out of this place?"

"Rotten trip I let you in for Tommy," growled Frank, "and I hope Leland's worth it. But, darn it all, I just had to come."

"It's all right with me, Frank. And maybe it'll be worth it yet. Look—the front door's open."

He pointed to the huge oaken door and Frank saw that it was ajar. The snow on the porch was not deep and they saw that footprints led from the open door to a corner of the porch. At that point the snow on the railing was disturbed, as if a hurrying man had clung to it a moment before jumping over and into the drifts below. But the tracks led no further, for the drifting snow had covered all excepting a hollow where some body had landed.

"Thomas!" exclaimed Frank. "And he was in a hustle, by the looks of the tracks. Bet he was frightened while at the telephone and beat it."

They entered the house and closed the door behind them. It was growing quite dark and Frank searched for the light switch. This was near the door, and, at pressure on the upper button, the spacious old hall with its open staircase was revealed dimly by the single remaining bulb in a cluster set in the center of the high ceiling. The hall was unfurnished, excepting for a telephone table and chair, the chair having fallen to the floor and the receiver of the telephone dangling from the edge of the table by its cord.

"You must have heard the chair fall," commented Tommy, "and it sure does look as if Thomas left in a hurry. Wonder what it was that frightened him?"

The house was eerily silent and the words echoed awesomely through the adjoining rooms which connected with the hall through large open doorways.

"Spooky place, isn't it?" returned Frank.

And then they were both startled into immobility by a rumble that seemed to shake the foundations of the house. Heavier and heavier became this vibration, as if some large machine was coming up to speed. Louder and louder grew the rumble until it seemed that the rickety old house must be shaken down about their ears. Then there came a whistling scream from the depths of the earth—from far underground it seemed to be—and this mounted in pitch until their eardrums tingled. Then abruptly the sounds ceased, the vibration stopped, and once more there was the eery silence.

Rather white-faced, Tommy gazed at Frank.

"No wonder old Thomas beat it!" he said. "What on earth do you suppose that is?"

"Search me," replied Frank. "But whatever it is, I'll bet it has something to do with Leland's strange actions. And we're going to find out."

He had with him the large flashlamp from the car, and, by its light, the two made their way from room to room searching for the iron-bound door mentioned by Thomas.

They found all rooms on the first and second floors dusty and unused with the exception of two bedrooms, the kitchen and pantry, and the library. It was a gloomy and spooky old house. Floor boards creaked startlingly and unexpectedly and the sound of their footsteps echoed dismally.

"Where in time is that laboratory of Leland's?" exclaimed Frank, his ruddy features showing impatient annoyance, exaggerated to an appearance of ferocity by the light of the flashlamp.

"How about the cellar?" suggested Tommy.

"Probably where it is," agreed Frank, "but I don't relish this job so much. I'd hate to find Leland stiff down there, if that's where he is."

"Me, too," said Tommy. "But we're here now, so let's finish the job and get back home. It's cold here, too."

"You said it. No steam in the pipes at all. He must have let the fire go out in his furnace, and that's probably in the cellar too—usually is."

While talking, Frank had opened each of the four doors that opened from the kitchen, and the fourth revealed a stairway that led into the blackness beneath. With the beam of his torch directed at the steps, he proceeded to descend, and Tommy followed carefully. There was no light button at the head of the stairs, where it would have been placed in a more modern house, and it was not until they had reached the furnace room that they located a light fixture with a pull cord. An ordinary cellar, with furnace, coal bin, and a conglomeration of dust-covered trunks and discarded furniture, was revealed. And, at its far end, was the iron-bound door.

The door was locked and could not be shaken by the combined efforts of the two men.

"Have to have a battering ram," grunted Frank, casting about for a suitable implement.

"Here you are," called Tommy, after a moment's search. "Just the thing we are looking for."

He had come upon a pile of logs, and one of these, evidently a section of an old telephone pole, was of some ten or twelve inches diameter and about fifteen feet long. Frank pounced upon it eagerly, and, supporting most of the weight himself, led the attack on the heavy oak door with the iron bands.

No sound from within greeted the thunderous poundings. Clearly, if Leland was behind that door, he was either dead or unconscious.

Finally the double lock gave way and Tommy and Frank were precipitated headlong into the brightly lighted room beyond. Recovering their balance, they took stock of their surroundings and were amazed at what they saw—a huge laboratory, fitted out with every modern appliance that money could buy. A completely equipped machine shop there was; bench after bench covered with the familiar paraphernalia of the chemical and physical laboratory; huge retorts and stills; complicated electrical equipments; dozens of cabinets holding crucibles, flasks, bottles, glass tubing, and what not.

"Good Lord!" gasped Tommy. "Here's a laboratory to more than match our own. Why, Leland's got a fortune invested here!"

"I should say so. And a lot of stuff that our company does not even have. Some of it I don't know even the use of. But where is Leland?"

There was no sign of the man they had come to help. He was not in the laboratory, though the door had been locked from within and the lights left burning throughout.

With painstaking care they searched every nook and cranny of the large single room and were about to give up in despair when Tommy happened to observe an ivory button set into the wall at the only point in the room where there were no machines or benches at hand. Experimentally he pressed the button, and, at the answering rumble from under his feet, jumped back in alarm. Slowly there opened in the paneled oak wall a rectangular door, a door of large enough size to admit a man. From the recess beyond there came a breath of air, foul with the musty odor of decayed vegetation, dank as the air of a tomb.

"Ah-h-h!" breathed Frank. "So that is where Ed Leland is hiding! The secret retreat of the gloomy scientist!"

He spoke half jestingly, yet when he squeezed his stalwart bulk through the opening and flashed the beam of his light into the darkness of a narrow passage ahead he was assailed with vague forebodings. Tommy followed close behind and spoke not a word.

The passage floor was thick with dust, but the marks of many footsteps going and returning gave mute evidence of the frequency of Leland's visits. The air was heavy and oppressive and the temperature and humidity increased as they progressed along the winding length of the rock-walled passageway. The floor sloped, ever downward and, in spots, was slippery with slimy seepage. It seemed that they turned back on their course on several occasions but were descending deeper and deeper into the heart of the mountain. Then, abruptly, the passage ended at the mouth of a shaft, which dropped vertically from almost beneath their feet.

"Whew!" exclaimed Frank. "Another step and I'd have dropped into it. That's probably what happened to Leland."

He knelt at the rim of the circular opening and looked into the depths of the pit, Tommy following suit. The feeble ray of the flashlight was lost in the blackness below.

"Say, Frank," whispered Tommy, "turn off the flash. I think I saw a light

down there."

And, with the snapping of the catch, there came darkness. But, miles below them, it seemed, there was a tiny pin-point of brilliance—an eery green light that was like a wavering phosphorescence of will-o'-the-wisp. For a moment it shone and was gone. Then came the dreadful vibration they had experienced in the hall of the house—the whistling scream that grew louder and louder until it seemed they must be deafened. The penetrating wail rose from the depths of the pit, and the vibration was all around them, in the damp rock floor on which they knelt, and in the very air of the cavern. Hastily Frank snapped on the light of his flash.

"Oh boy!" he whispered. "Leland is certainly up to something down there and no mistake! How're we going to get down?"

"Get down?" asked Tommy. "You don't want to go down there, do you?"

"Sure thing. We're this far now and, by George, we're going to find out all there is to learn."

"How deep do you suppose it is?"

"Pretty deep, Tommy. But we can get an idea by dropping a stone and counting the seconds until it strikes."

He played the light of the flash over the floor and soon located a smooth round stone of the size of a baseball. This he tossed over the rim of the pit and awaited results.

"Good grief!" exclaimed Tommy. "It's not falling!"

What he said was true, for the stone poised lightly over the opening and drifted like a feather. Then slowly it moved, settling gradually into oblivion. Frank turned the flash downward and they watched in astonishment as the two-pound pebble floated deliberately down the center of the shaft at the rate of not more than one foot in each second.

"Well, I'll be doggoned," breathed Frank admiringly. "Leland has done it. He has conquered gravity. For, in that pit at least, there is no gravity, or at any rate not enough to mention. It has been almost completely counteracted by some force he has discovered and now we know how to follow him down there. Come on Tommy, let's go!"

And, suiting action to his words, Frank jumped into the mouth of the pit

where he bobbed about for a moment as if he had jumped into a pool of water. Then slowly he sank from view, and Tommy followed him.

It was a most unique experience, that drop into the heart of the mountain. Practically weightless, the two young men found it quite difficult to negotiate the passage. For the first hundred or more feet they continued to bump about in the narrow shaft and each sustained painful bruises before he learned that the best and simplest method of accommodating himself to the strange condition was to remain absolutely motionless and allow the greatly weakened gravity to take its course. Each movement of an arm or leg was accompanied by a change in direction of movement, and contact with the hard stone walls followed. If they endeavored to push themselves from the contact the result was likely to be an even more serious bump on the opposite side of the shaft. So they continued the leisurely drop into the unknown depth of the pit.

Frank had turned off the flashlamp, for its battery was giving out and he wished to conserve its remaining energy for eventualities. Thus they were in Stygian darkness for nearly a half-hour, though the green luminosity far beneath them grew stronger with each passing minute. It now revealed itself as a clearly defined disc of light that flickered and sputtered continually, frequently lighting the lower end of the shaft with an unusual burst of brilliance. Remotely distant it seemed though, and unconscionably slow in drawing nearer.

"How far do you think we must drop?" called Tommy to Frank, who was probably fifty feet below him in the shaft.

"Well, I figure we have fallen about a thousand feet so far," came the reply, "and my guess is that we are about one third of the way down."

"Then this shaft is over a half-mile deep, you think?"

"Yes, at least a thousand yards, I should say. And I hope his gravity neutralizing machinery doesn't quit all of a sudden and let us down."

"Me, too," called Tommy, who had not thought of that possibility.

This was no joke, this falling into an unknown region so far beneath the surface of good old mother earth, thought Tommy. And how they would ever return was another thing that was not so funny. Frank was always rushing into

things like this without counting the possible cost and—well—this might be the last time.

Gradually the mysterious light became stronger and soon they could make out the conformation of the rock walls they were passing at such a snail's pace. Layers of vari-colored rock showed here and there, and, at one point there was a stratum of gold-bearing or mica-filled rock that glistened with a million reflections and re-reflections. The air grew warmer and more humid as they neared the mysterious light source. They moved steadily, without acceleration, and Frank estimated the rate at about forty feet a minute. Then, with blinding suddenness, the light was immediately below and they drifted into a tremendous cavern that was illuminated by its glow.

Directly beneath the lower end of the shaft through which they had passed, there was a glowing disc of metal about fifteen feet in diameter. They drifted to its surface and sprawled awkwardly where they fell. Scrambling to gain a footing, they bounced and floated about like toy balloons before realizing that it would be necessary to creep slowly from the influence of that repelling force which had made the long drop possible without injury. Gravity met them at the disc's edge with what seemed to be unusual violence.

At first it seemed that their bodies weighed twice the normal amount, but this feeling soon passed and they looked about them with incredulous amazement. The metal disc was quite evidently the medium through which the repelling force was set up in the shaft, and to this disc was connected a series of heavy cables that led to a pedestal nearby. On the pedestal was a controlling lever and this moved over a quadrant that was graduated in degrees, one end of the quadrant being labeled "Up" and the other "Down." The lever now stood at a point but a very few degrees from the center or "Zero" mark and on the down side. Frank pulled this lever over to the full "Down" position and they found that they could walk over the disc with normal gravity.

"I suppose," said Frank, "that if the lever is at the other end of the scale one would fall upward with full gravity acceleration—reversed. At zero, gravity is exactly neutralized, and the intermediate positions are useful in conveying materials or human beings up and down the shaft as desired. Very clever; but what is the reason for it all?"

In the precise center of the great cavern there was a dome or hemisphere of polished metal, and it was from this dome that the eery light emanated. At times, when the light died down, this dome gleamed with dull flickerings that threatened to vanish entirely. Then suddenly it would resume full brilliance, and the sight was marvelous beyond description. A slight hissing sound came from the direction of the dome, and this varied in intensity as did the light.

"Gosh!" said Tommy. "That looks like silver to me. And, if it is, what a wealthy man our friend Leland has become. He has spent his fortune well, even if he used it all to get to this."

"Yes, but where is he?" commented Frank. Then: "Leland! Leland!" he called.

His voice echoed through the huge vault and re-echoed hollowly. But there was no reply save renewed flickerings from the dome.

Leaving the vicinity of the gravity disc, the two men advanced in the direction of the shining dome, which was about a quarter-mile from where they stood. Both perspired freely, for the air was very close and the temperature high. But the light of the dome was as cold as the light of a firefly and they had no hesitancy in drawing near. It was a beautiful sight, this dome of silver with its flickering lights and perfect contour.

"By George, I believe it *is* silver," exclaimed Frank, when they were within a few feet of the dome. "No other metal has that precise color. And look! There is a wheelbarrow and some mining tools. Leland has been cutting away some of the material."

Sure enough, there was indisputable evidence of the truth of his statement. And the material was undoubtedly silver!

"Silver Dome," breathed Tommy, holding a lump of the metal in his hand. "A solid dome of pure silver—fifty feet high and a hundred in diameter. How much does that figure in dollars and cents, Frank?"

"Maybe it isn't solid," said Frank dryly, "though it's worth a sizeable fortune even if it is hollow. And we haven't found Leland."

They circled the dome twice and looked into every corner of the great

cavern, but there was no sign of the man for whom they searched. The wheelbarrow was half filled with lumps of the heavy metal, and maul and drill lay where they had been dropped by the lone miner. A cavity three feet across, and as many deep, appeared in the side of the dome to show that considerably more than one wheelbarrow load had been removed.

"Funny," grunted Tommy. "Seems almost like the old dome had swallowed him up."

At his words there came the terrific vibration. The light of the dome died out, leaving them in utter darkness, and from its interior there rose the mounting scream that had frightened old Thomas away. From so close by it was hideous, devastating; and the two men clung to each other in fright, expecting momentarily that the earth would give way beneath their feet and precipitate them into some terrible depth from which there could be no return.

Then the sound abruptly ceased and a gleam of light came from under the dome of silver. A crack appeared between its lower edge and the rocky floor of the cavern, and through this crack there shone a light of dazzling brilliancy—a warm light of rosy hue. Wider grew the opening until there was a full three feet between the floor and the bottom of the dome. Impelled by some irresistible force from within, the two men stumbled blindly to the opening, fell to the floor and rolled inside.

There was a heavy thud and the dome had returned to its normal position, with Frank and Tommy prisoners within its spacious hollow. The warm light bathed them with fearful intensity for a moment, then faded to a rosy glow that dulled their senses and quieted their nerves. Morpheus claimed them.

When Frank awoke he found himself between silken covers, and for a moment he gazed thoughtfully at a high arched ceiling that was entirely unfamiliar. Then, remembering, he sprang from the downy bed to his feet. The room, the furnishings, his silken robe, everything was strange. His bed, he saw, was a high one, and the frame was of the same gleaming silver as the dome under which they had been trapped. The arched ceiling glowed softly with the same rosy hue as had the inner surface of the dome. A large pool of water invited him, the surface of the pool being no more than a foot below the point where it was built into the tile floor of the room. A large open doorway

connected with a similar adjoining room, where he suspected Tommy had been taken. On his bare toes, he moved silently to the other room and saw that his guess had been correct. Tommy lay sleeping quietly beneath covers as soft as his own and amidst equal luxury of surroundings.

"Well," he whispered, "this doesn't look as though we would come to any harm. And I might as well take a dive in that pool."

Returning to his own room, he removed the silken garment with which he had been provided and was quietly immersed in the cool, invigorating water of the bath. His head cleared instantly.

"Hi there!" called Tommy from the doorway. "Why didn't you wake me up? Where are we, anyway?"

With dripping head and shoulders above the water, Frank was compelled to laugh at the sleepy-eyed, wondering expression on the blue-jowled face of his friend. "Thought you were dead to the world," he returned, "you old sleepy-head. And I don't know where we are, excepting that it is somewhere under the silver dome. What's more, I don't much care. You should get into this water. It's great!"

So saying, he dived to the bottom of the pool and stood on his hands, his feet waving ludicrously above the surface. Tommy sniffed once and then made a quick dash for the pool in his own room. He was not to be outdone by his more energetic partner.

A half-hour later, shaved and attired in their own garments, which had been cleaned and pressed and hung neatly in the closets, they settled themselves for a discussion of the situation. Having tried the doors of both rooms and found them locked from the outside, there was no other course open to them. They must await developments.

"Looks like Leland has quite an establishment down here inside the mountain," ventured Tommy.

"Hm!" snorted Frank, "this place is none of Leland's work. He is probably a prisoner here, as are we. He just stumbled on to the silver dome and was captured by whatever race is living down here beneath it, the same as we were. Who the real inhabitants are, and what the purpose of all this is, remains to be seen."

"You think we are in friendly hands?"

"These quarters do not look much like prison cells, Tommy, but I must admit that we are locked in. Anyhow, I'm not worrying, and we will soon learn our fate and have to be ready to meet it. The people who own this place must have everything they want, and they sure have some scientific knowledge that is not known to us on the surface."

"Wonder if they are humans?"

"Certainly they are. You never heard of wild beasts sleeping in beds like these, did you?"

Tommy laughed at he examined the exquisite hand-wrought figures on the silver bedstead. "No, I didn't," he admitted; "but where on earth did they come from, and what are they doing here?"

"You ask too many questions," replied Frank, shrugging his broad shoulders. "We must simply wait for the answers to reveal themselves."

There was a soft rap at the door of Frank's room, where the two men were talking.

"Come in," called Frank, chuckling at the idea of such consideration from their captors.

A key rattled in the lock and the door swung open to admit the handsomest man they had ever set eyes on. He was taller than Frank by several inches, standing no less than six feet five in his thin-soled sandals, and he carried himself with the air for an emperor. His marble-white body was uncovered with the exception of a loin cloth of silver hue, and lithe muscles rippled beneath his smooth skin as he advanced to meet the prisoners. His head, surmounted by curly hair of ebon darkness, was large, and his forehead high. The features were classic and perfectly regular. The corners of his mouth drew upward in a benign smile.

"Greetings," he said, in perfect English and in a soft voice, "to the domain of Theros. You need fear no harm from our people and will be returned to the upper world when the time comes. We hope to make your stay with us enjoyable and instructive, and that you will carry back kind memories of us. The morning meal awaits you now."

So taken aback were the two young Americans that they stared foolishly agape for a space. Then a tinkling laugh from the tall stranger set them once more at ease.

"You will pardon us, I hope," apologized Frank, "but this is all so unexpected and so unbelievable that your words struck me speechless. And I know that my friend was similarly affected—We place ourselves in your hands."

The handsome giant nodded understanding. "No offense was taken," he murmured, "since none was intended. And your feelings are not to be wondered at. You may call me Orrin."

He turned toward the open door and signified that they were to follow him. They fell in at his side with alacrity, both suddenly realizing that they were very hungry.

They followed in silent wonderment as Orrin led the way to a broad balcony that overlooked a great underground city—a city lighted by the soft glow from some vast lighting system incorporated in its vaulted ceiling high overhead. The balcony was many levels above the streets, which were alive with active beings of similar appearance to Orrin, these speeding hither and yon by means of the many lanes of traveling ways of which the streets were composed. The buildings —endless rows of them lining the orderly streets—were octagonal in shape and rose to the height of about twenty stories, as nearly as could be judged by earthly standards. There were no windows, but at about every fifth floor there was an outer silver-railed balcony similar to the one on which they walked. The air was filled with bowl-shaped flying ships that sped over the roof tops in endless procession and without visible means of support or propulsion. Yet the general effect of the busy scene was one of precise orderliness, unmarred by confusion or distracting noises.

Orrin vouchsafed no explanations and they soon reentered the large building of which the balcony was a part. Here they were conducted to a sumptuously furnished dining room where their breakfast awaited them.

During the meal, which consisted of several courses of fruits and cereals entirely strange to Frank and Tommy, they were tended by Orrin with the utmost deference and most painstaking attention. He anticipated their every

want and their thoughts as well. For, when Frank endeavored to ask one of the many questions with which his mind was filled, he was interrupted by a wave of the hand and a smile from their placid host.

"It is quite clear to me that you have many questions to propound," said Orrin, "and this is not a matter of wonder. But it is not permitted that I enlighten you on the points you have in mind. You must first finish your meal. Then it is to be my privilege to conduct you to the presence of Phaestra, Empress of Theros, who will reveal all. May I ask that you be patient until then?"

So friendly was his smile and so polished his manner that they restrained their impatience and finished the excellent breakfast in polite silence.

And Orrin was as good as his word, for, no sooner had they finished when he led them from the room and showed the way to the elevator which conveyed them to the upper floor of the building.

From the silver-grilled cage of the lift they stepped into a room of such beauty and magnificence of decoration that they gazed about them in wondering admiration. The paneling and mouldings were of hammered silver that gleamed with polished splendor in the soft rose glow of the hidden lights. The hangings were of heavy plush of deep green hue and bore intricate designs of silver thread woven into the material. At the opposite side of the room there was a pair of huge double doors of chased silver and on either side of this pretentious portal there stood an attendant attired as was Orrin, but bearing a silver scepter to denote his official capacity.

"Phaestra awaits the visitors from above," intoned one of the attendants. Both bowed stiffly from the waist when Orrin led the two young scientists through the great doors which had opened silently and majestically at their approach.

If the outer room was astonishing in its sumptuousness of decoration and furnishing, the one they now entered was positively breath-taking. On every side there were the exquisite green and silver hangings. Tables, divans, and rugs of priceless design and workmanship. But the beauty of the surroundings faded into insignificance when they saw the empress.

A canopied dais in the center of the room drew their attention and they saw

that Phaestra had risen from her seat in a deeply cushioned divan and now stood at its side in an attitude of welcome. Nearly as tall as Frank, she was a figure of commanding and imperious beauty. The whiteness of her body was accentuated by the silver embroidered and tightly fitted black vestments that covered yet did not conceal its charms. A halo of glorious golden hair surmounted a head that was poised expectantly alert above the perfectly rounded shoulders. The exquisite oval of her face was chiseled in features of transcendent loveliness. She spoke, and, at sound of her musical voice, Frank and Tommy were enslaved.

"Gentlemen of the upper world," she said gently, "you are welcome to Theros. Your innermost thoughts have been recorded by our scientists and found good. With a definite purpose in mind, you learned of the existence of the silver dome of Theros, yet you came without greed or malice and we have taken you in to enlighten you on the many questions that are in your minds and to return you to mankind with a knowledge of Theros—which you must keep secret. You are about to delve into a mystery of the ages; to see and learn many things that are beyond the ken of your kind. It is a privilege never before accorded to beings from above."

"We thank you, oh, Queen," spoke Frank humbly, his eyes rivetted to the gaze of those violet orbs that seemed to see into his very soul. Tommy mumbled some commonplace.

"Orrin—the sphere!" Phaestra, slightly embarrassed by Frank's stare, clapped her hands.

At her command, Orrin, who had stood quietly by, stepped to the wall and manipulated some mechanism that was hidden by the hangings. There was a musical purr from beneath the floor, and, through a circular opening which appeared as if by magic, there rose a crystal sphere of some four feet in diameter. Slowly it rose until it reached the level of their eyes and there it came to rest. The empress raised her hands as if in invocation and the soft glow of the lights died down, leaving them in momentary darkness. There came a slight murmur from the sphere, and it lighted with the eery green flickerings they had observed in the dome of silver.

Fascinated by the weaving lights within, they gazed into the depths of the crystal with awed expectancy. Phaestra spoke.

"Men from the surface," she said, "you, Frank Rowley, and you, Arnold Thompson, are about to witness the powers of that hemisphere of metal you were pleased to term 'Silver Dome.' As you rightly surmised, the dome is of silver—mostly. There are small percentages of platinum, iridium, and other elements, but it is more than nine-tenths pure silver. To you of the surface the alloy is highly valuable for its intrinsic worth by your own standards, but to us the value of the dome lies in its function in revealing to us the past and present events of our universe. The dome is the 'eye' of a complicated apparatus which enables us to see and hear any desired happening on the surface of the earth, beneath its surface, or on the many inhabited planets of the heavens. This is accomplished by means of extremely complex vibrations radiated from the hemisphere, these vibrations penetrating earth, metals, buildings, space itself, and returning to our viewing and sound reproducing spheres to reveal the desired past or present occurrences at the point at which the rays of vibrations are directed.

"In order to view the past on our own planet, the rays, which travel at the speed of light, are sent out in a huge circle through space, returning to earth after having spent the requisite number of years in transit. Instantaneous effect is secured by a connecting beam that ties together the ends of the enormous arc. This, of course, is beyond your comprehension, since the Ninth Dimension is involved. When it is desired that events of the present be observed, the rays are projected direct. The future can not be viewed, since, in order to accomplish this, it would be necessary that the rays travel at a speed greater than that of light, which is manifestly impossible."

"Great guns!" gasped Frank. "This crystal sphere then, is capable of bringing to our eyes and ears the happenings of centuries past?"

"It is, my dear Frank," said Phaestra, "and I would that I were able to describe the process more clearly." She smiled, and in the unearthly light of the sphere she appeared more beautiful than before, if such a thing were possible.

On the pedestal which supported the sphere there was a glittering array of dials and levers. Several of these controls were now adjusted by Phaestra, the

delicate motions of her tapered fingers being watched by the visitors with intense admiration. There came a change in the note of the sphere, a steadying of the flickerings within.

"Behold!" exclaimed Phaestra.

They gazed into the depths of the sphere and lost all sense of detachment from the scene depicted therein. It seemed they were at a point several thousand miles from the surface of a planet. A great continent spread beneath them, its irregular shore line being clearly outlined against a large body of water. Here and there the surface was obscured by great white patches of clouds that cast their shadows below.

"Atlantis!" breathed Phaestra reverently.

The lost continent of mythology! The fabled body of land that was engulfed by the Atlantic thousands of years ago—a fact!

Tommy glanced at Frank, noting that he had withdrawn his gaze from the sphere and was devouring Phaestra with his eyes. As if drawn by the ardor of his observation, she raised her own eyes from the sphere to meet those of the handsome visitor. Obviously confused, she dropped her long lashes and turned nervously to the controls. Tommy experienced a sudden feeling of dread. Surely his pal was not falling in love with this Theronian empress!

Then there came another change in the note of the sphere and once more they lost themselves in contemplation of the scene within. The surface of the lost continent was rushing madly to meet them. With terrific velocity they seemed to be falling. An involuntary gasp was forced from Tommy's lips. Mountains, valleys, rivers could now be discerned.

Then the scene shifted slightly and they were stationary, directly above a large seacoast city. A city of great beauty it was, and its buildings were of the same octagonal shape as were those of Theros! There could be but one inference —the Theronians were direct descendants of those inhabitants of ancient Atlantis.

"Yes," sighed Phaestra, in answer to the thought she had read, "our ancestors were those you now see in the streets of this city of Atlantis. A

marvelous race they were, too. When the rest of the world was still savage and unenlightened, they knew more of the arts and sciences than is known on the surface to-day. The mysteries of the Fourth Dimension they had already solved. Their telescopes were of such power that they knew of the existence of intelligent beings on Mars and Venus. They had conquered the air. They knew of the relation between gravity and magnetism but recently propounded by your Einstein. They were prosperous, happy. Then—but watch!"

Faint sounds of the life of the city came to their ears. A swarm of monoplanes roared past just beneath them. The streets were crowded with rapidly moving vehicles, the roof-tops with air-craft. Then suddenly the scene darkened; a deep rumbling came from the sea. As they watched in fascinated wonder, a great chasm opened up through the heart of the city. Tall buildings swayed and crumbled, falling into heaps of twisted metal and crushed masonry and burying hundreds of the populace in their fall. The confusion was indescribable, the uproar terrific, and within the space of a very few minutes the entire city was a mass of ruins, fully half of the wrecked area having been swallowed up by the heaving waters of the ocean.

Phaestra stifled a sob. "Thus it began," she stated. "Trovus was first—the city you just saw—then came three more of the cities of the western coast in rapid succession. Computations of the scientists showed that the upheaval was widespread and that the entire continent was to be engulfed in a very short time. The exodus began, but it was too late, and only a few hundred people were able to escape the continent before it was finally destroyed. The ocean became the tomb of two hundred millions. The handful of survivors reached the coast of what is now North America. But the rigors of the climate proved severe and more than three-quarters of them perished within a few days after their planes landed. Then the rest took to the caves along the shore, and for a while were safe."

She manipulated the controls once more and there was a quick shift to another coast, a rugged, wave-beaten shore. Closer they drew until they observed a lofty palisade that extended for miles along the barren waterfront. They saw a fire atop this elevation and active men and women at various tasks within the narrow circle of its warmth. A cave mouth opened at the brink of the

precipice near the spot they occupied.

Then came a repetition of the upheaval at Trovus. The ocean rushed in and beat against the cliff with such ferocity that its spray was tossed hundreds of feet in the air. The earth shook and the group of people around the fire made a hasty retreat to the mouth of the cave. The sky darkened and the winds howled with demoniac fury. Quake after quake rent the rugged cliffs: huge sections toppled into the angry waters. Then a great tidal wave swept in and covered everything, cliffs, cave mouths and all. Nought remained where they had been but the seething waters.

"But some escaped!" exulted Phaestra, "and these discovered Theros. Though many miles of the eastern seaboard of your United States were submerged and the coastline entirely altered, these few were saved. Their cave connected with a long passage, a tunnel that led into the bowels of the earth. With the outer entrance blocked by the upheaval they had no alternative save to continue downward."

"They traveled for days and days. Some were overcome by hunger and fell by the wayside. The most hardy survived to reach Theros, a series of enormous caverns that extends for hundreds of miles under the surface of your country. Here they found subterranean lakes of pure water; forests, game. They had a few tools and weapons and they established themselves in this underground world. From that small beginning came this!"

Phaestra's slim fingers worked rapidly at the controls. The scenes shifted in quick succession. They were once more in the present, and seemed to be traveling speedily through the underground reaches of Theros. Now they were racing through a long lighted passage; now over a great city similar to the one in which they had arrived. Here they visited a huge workshop or laboratory; there a mine where radium or cobalt or platinum was being wrested from the vitals of the unwilling earth. Then they visited a typical Theronian household, saw the perfect peace and happiness in which the family lived. Again they were in a large power plant where direct application of the internal heat of the earth as obtained through deep shafts bored into the interior was utilized in generating electricity.

They saw vast quantities of supplies, fifty-ton masses of machinery, moved

from place to place as lightly as feathers by use of the gravity discs, those heavily charged plates whose emanations counteracted the earth's attraction. In one busy laboratory they saw an immense television apparatus and heard scientists discussing moot questions with inhabitants of Venus, whose images were depicted on the screen. They witnessed a severe electrical storm in the huge cavern arch over one of the cities, a storm that condensed moisture from the artificially oxygenated and humidified atmosphere in such blinding sheets as to easily explain the necessity for well-roofed buildings in the underground realm. And, in all the speech and activities of the Theronians, there was evident that all-pervading feeling of absolute contentment and freedom from care.

"What I can not understand," said Frank, during a quiet interval, "is why the Theronians have never migrated to the surface. Surely, with all your command of science and mechanics, that would be easy."

"Why? Why?" Phaestra's voice spoke volumes. "Here—I'll show you the reason."

And again the scene in the sphere changed. They were on the surface and a few years in the past—at Chateau Thierry. They saw their fellow men mangled and broken; saw human beings shot down by hundreds in withering bursts of machine-gun fire; saw them in hand-to-hand bayonet fights; gassed and in delirium from the horror of it all.

They traveled over the ocean; saw a big passenger liner the victim of torpedo fire; saw babies tossed into the water by distracted mothers who jumped in after them to join them in death.

A few years were passed by and they saw gang wars in Chicago and New York; saw militia and picketing strikers in mortal combat; saw wealthy brokers and bank presidents turn pistols on themselves following a crash in the stock market; government officials serving penitentiary terms for betrayal of the people's trust; opium dens, speakeasies, sex crimes. It was a fearful indictment.

"Ah, no," said Phaestra kindly, "the surface world has not yet emerged from savagery. We should be unwelcome were we to venture outside. And now we come to the reason for your visit. You come in search of one Edwin Leland, a fellow worker at one time. Your motives are above reproach. But Leland came as a greedy searcher of riches. We brought him within to teach him the error of

his ways and to beg him to desist from his efforts at destroying the dome of silver. He alone knew the secret."

"Then you followed him and we took you in for similar reasons, though our scientists found very quickly that your mental reactions were of entirely different type from Leland's and that the secret would be safe in your keeping. Leland remains obdurate. He threatens us with physical violence, and his reactions to the thought-reading machines are of the most treacherous sort. We must keep him with us. He shall remain unharmed, but he must not be allowed to return. That is the story. You two are free to leave when you choose. I ask not that you give your word to keep the secret of 'Silver Dome.' I know it is not necessary."

The lights had resumed their normal glow, and the marvelous sphere returned to its receptacle beneath the floor. Phaestra resumed her seat on the canopied divan. Frank dropped to a seat on the edge of the dais. Tommy and Orrin remained standing, Tommy lost in thought and Orrin stolidly mute. The empress avoided Frank's gaze studiously. Her cheeks were flushed; her eyes bright with emotion.

Frank was first to break the silence. "Leland is in solitary confinement?" he asked.

"For the present he is under guard," replied Phaestra. "He was quite violent and it was necessary to disarm him after he had killed one of my attendants with a shot from his automatic pistol. When he agrees to submit peacefully, he shall be given the freedom of Theros for the remainder of his life."

"Perhaps," suggested Frank, "if I spoke to him...."

"The very thing." Phaestra thanked him with her wondrous eyes.

A high pitched note rang out from behind the hangings, and, in rapid syllables of the language of Theros, a voice broke forth from the concealed amplifiers. Orrin, startled from his stoicism, sprang to the side of his empress. She rose from her seat as the voice completed its excited message.

"It is Leland," she said calmly. "He has escaped and recovered his pistol. I have been told that he is now at large in the palace, terrorizing the household. We have no weapons here, you see."

"Good God!" shouted Frank. "Suppose he should come here?"

He jumped to his feet just as a shot rang out in the antechamber. Orrin dashed to the portal when a second shot spat forth from the automatic which must certainly be in the hands of a madman. The doors swung wide and Leland, hair disarranged and bloodshot eyes staring, burst into the room. Orrin went down at the next shot and the hardly recognizable scientist advanced toward the dais.

When he saw Frank and Tommy he stopped in his tracks. "So you two have been following me!" he snarled. "Well, you won't keep me from my purpose. I'm here to kill this queen of hell!"

Once more he raised his automatic, but Frank had been watching closely and he literally dove from the steps of the dais to the knees of the deranged Leland. As beautiful a tackle as he had ever made in his college football days laid the maniac low with a crashing thud that told of a fractured skull. The bullet intended for Phaestra went wide, striking Tommy in the shoulder.

Spun half way around by the impact of the heavy bullet, Tommy fought to retain his balance. But his knees went suddenly awry and gave way beneath him. He crumpled helplessly to the floor, staring foolishly at the prostrate figure of Leland and at Frank, who had risen to his feet and now faced the beautiful empress of Theros. Strange lights danced before Tommy's eyes, and he found it difficult to keep the pair in focus. But he was sure of one thing—his pal was unharmed. Then the two figures seemed to merge into one and he blinked his eyes rapidly to clear his failing vision. By George, they were in each other's arms! Funny world—above or below—it didn't seem to make any difference. But it was a tough break for Frank—morganatic marriage and all that. No chance—well—

Tommy succumbed to his overpowering drowsiness.

The awakening was slow, but not painful. Rather there was a feeling of utter contentment, of joy at being alive. A delicious languor pervaded Tommy's being as he turned his head on a snow white silken pillow and stared at the figure of the white-capped nurse who was fussing with the bottles and instruments that

lay on an enameled table beside the bed. Memory came to him immediately. He felt remarkably well and refreshed. Experimentally he moved his left shoulder. There was absolutely no pain and it felt perfectly normal. He sat erect in his surprise and felt the shoulder with his right hand. There was no bandage, no wound. Had he dreamed of the hammer blow of that forty-five caliber bullet?

His nurse, observing that her patient had recovered consciousness, broke forth in a torrent of unintelligible Theronian, then rushed from the room.

He was still examining his unscarred shoulder in wonder, when the nurse returned, with Frank Rowley at her heels. Frank laughed at the expression of his friend's face.

"What's wrong, old-timer?" he asked.

"Why—I—thought that fool of a Leland had shot me in the shoulder," stammered Tommy, "but I guess I dreamed it. Where are we? Still in Theros?"

"We are." Frank sobered instantly, and Tommy noted with alarm that his usually cheerful features were haggard and drawn and his eyes hollow from loss of sleep. "And you didn't dream that Leland shot you. That shoulder of yours was mangled and torn beyond belief. He was using soft nosed bullets, the hell-hound!"

"Then how—?"

"Tommy, these Theronians are marvelous. We rushed you to this hospital and a half-dozen doctors started working on you at once. They repaired the shattered bones by an instantaneous grafting process, tied the severed veins and arteries and closed the gaping wound by filling it with a plastic compound and drawing the edges together with clamps. You were anaesthetized and some ray machine was used to heal the shoulder. This required but ten hours and they now say that your arm is as good as ever. How does it feel?"

"Perfectly natural. In fact I feel better than I have in a month." Tommy observed that the nurse had left the room and he jumped from his bed and capered like a school boy.

This drew no sign of merriment from Frank, and Tommy scrutinized him once more in consternation. "And you," he said, "what is wrong with you?"

"Don't worry about me," replied Frank impatiently. Then, irrelevantly, he said "Leland's dead."

"Should be. I knew we shouldn't have started out to help him. But, Frank, I'm concerned about you. You look badly." Tommy was getting into his clothes as he spoke.

"Forget it, Tommy. You've been sleeping for two days, you know—part of the cure—and I haven't had much rest during that time. That is all."

"It's that Phaestra woman," Tommy accused him.

"Well, perhaps. But I'll get over it, I suppose. Tommy, I love her. But there's no chance for me. Haven't seen her since the row in the palace. Her council surrounds her continually and I have been advised to-day that we are to be returned as quickly as you are up and around. That means immediately now."

"Good. The sooner the better. And you just forget about this queen as soon as you are able. She's a peach, of course, but not for you. There's lots more back in little old New York." But Frank had no reply to this sally.

There came a knock at the door and Tommy called, "Come in."

"I see you have fully recovered," said the smiling Theronian who entered at the bidding, "and we are overjoyed to know this. You have the gratitude of the entire realm for your part in the saving of our empress from the bullets of the madman."

"I?"

"Yes. You and your friend. And now, may I ask, are you ready to return to your own land?"

Tommy stared. "Sure thing," he said, "or rather, I will be in a few minutes."

"Thank you. We shall await you in the transmitting room." The Theronian bowed and was gone.

"Well, I like that," said Tommy. "He hands me an undeserved compliment and then asks how soon we can beat it. A 'here's your hat, what's your hurry' sort of thing."

"It's me they're anxious to be rid of," remarked Frank, shrugging his broad shoulders, "and perhaps it is just as well."

"You bet it is!" agreed Tommy enthusiastically, "and I'm in favor of making it good and snappy." He completed his toilet as rapidly as possible and then turned to face the down-hearted Frank.

"How do we go? The way we came?" he asked.

"No, Tommy. They have closed off the shaft that led from the cavern of the silver dome. They are taking no more chances. It seems that the shaft down which we floated was constructed by the Theronians; not by Leland. They had used it and the gravity disc to transport casual visitors to the surface, who occasionally mixed with our people in order to learn the languages of the upper world and to actually touch and handle the things they were otherwise able to see only through the medium of Silver Dome and the crystal spheres. Further visits to the surface are now forbidden, and we are to be returned by a remarkable process of beam transmission of our disintegrated bodies."

"Disintegrated?"

"Yes. It seems they have learned to dissociate the atoms of which the human body is composed and to transmit them to any desired point over a beam of etheric vibrations, then to reassemble them in the original living condition."

"What? You mean to say we are to be shot to the surface through the intervening rock and earth? Disintegrated and reintegrated? And we'll not even be bent, let alone busted?"

This time he was rewarded by a laugh. "That's right. And I have gone through the calculations with one of the Theronian engineers and can find no flaw in the scheme. We're safe in their hands."

"If you say so, Frank, it's okay with me. Let's go!"

Reluctantly his friend lifted his athletic bulk from the chair. In silence he led the way to the transmitting room of the Theronian scientists.

Here they were greeted by two savants with whom Frank was already acquainted, Clarux and Rhonus by name. A bewildering array of complex mechanisms was crowded into the high-ceilinged chamber and, prominent among them, was one of the crystal spheres, this one of somewhat smaller size than the one in the palace of Phaestra.

"Where do you wish to arrive?" asked Clarux.

"As near to my automobile as possible," replied Frank, taking sudden interest in the proceedings. "It is parked in the lane between Leland's house

and the road."

Tommy looked quickly in his direction, encouraged by the apparent change in his attitude. The scientists proceeded to energize the crystal sphere. They were bent upon speeding the parting guests. Their beloved empress was to be saved from her own emotions.

Quick adjustments of the controls resulted in the locating of Frank's car, which was still buried to its axles in snow. The scene included Leland's house, or rather its site, for it appeared to have been utterly demolished by some explosion within.

Tommy raised questioning eyebrows.

"It was necessary," explained Rhonus, "to destroy the house in obliterating all traces of our former means of egress. It has been commanded that you two be returned safely, and we are authorized to trust implicitly in your future silence regarding the existence of Theros. This is satisfactory, I presume?"

Both Tommy and Frank nodded agreement.

"Are you ready, gentlemen?" asked Clarux, who was adjusting a mechanism that resembled a huge radio transmitter. Its twelve giant vacuum tubes glowed into life as he spoke.

"We are," chimed the two visitors.

They were requested to step to a small circular platform that was raised about a foot from the floor by means of insulating legs. Above the table there was an inverted bowl of silver in the shape of a large parabolic reflector.

"There will be no alarming sensations," averred Clarux. "When I close the switch the disintegrating energy from the reflector above will bathe your bodies for a moment in visible rays of a deep purple hue. You may possibly experience a slight momentary feeling of nausea. Then—presto!—you have arrived."

"Shoot!" growled Frank from his position on the stand.

Clarux pulled the switch and there was a murmur as of distant thunder. Tommy blinked involuntarily in the brilliant purple glow that surrounded him. Then all was confusion in the transmitting room. Somebody had rushed through the open door shouting, "Frank! Frank!" It was the empress Phaestra.

In a growing daze Tommy saw her dash to the platform, seize Frank in a clutch of desperation. There was a violent wrench as if some monster were twisting at his vitals. He closed his eyes against the blinding light, then realized that utter silence had followed the erstwhile confusion. He sat in Frank's car—alone.

The journey was over, and Frank was left behind. With awful finality it came to him that there was nothing he could do. It was clear that Phaestra had wanted his pal, needed him—come for him. From the fact that Frank remained behind it was evident that she had succeeded in retaining him. A sickening fear came to Tommy that she had been too late; that Frank's body was already partly disintegrated and that he might have paid the price of her love with his life. But a little reflection convinced him that if this were the case a portion of his friend's body would have reached the intended destination. Then, unexplainably, he received a mental message that all was well.

Considerably heartened, he pressed the starter button and the cold motor of Frank's coupe turned over slowly, protestingly. Finally it coughed a few times, and, after considerable coaxing by use of the choke, ran smoothly. He proceeded to back carefully through the drifts toward the road, casting an occasional regretful glance in the direction of the demolished mansion.

He would have some explaining to do when he returned to New York. Perhaps—yes, almost certainly, he would be questioned by the police regarding Frank's disappearance. But he would never betray the trust of Phaestra. Who indeed would believe him if he told the story? Instead, he would concoct a weird fabrication regarding an explosion in Leland's laboratory, of his own miraculous escape. They could not hold him, could not accuse him of murder without producing a body—the *corpus delicti*, or whatever they called it.

Anyway, Frank was content. So was Phaestra.

Tommy swung the heavy car into the road and turned toward New York, alone and lonely—but somehow happy; happy for his friend.

NIGHTMARE PLANET



by **MURRAY LEINSTER**

The Directory-ship *Tethys* made the first landing on the planet, $L216^{12}$. It was a goodly world, with an ample atmosphere and many seas, which the nearby sun warmed so lavishly that a perpetual cloud-bank hid them and all the solid ground from view. It had mountains and islands and high plateaus. It had day and night and rain. It had an equable climate, rather on the tropical side. But it possessed no life.

No animals roamed its solid surface. No vegetation grew from its rocks. Not even bacteria struggled with the stones to turn them into soil. No living thing, however small, swam in its oceans. It was one of that disappointing vast majority of otherwise admirable worlds which was unsuited for colonization solely because it had not been colonized before. It could be used for biological experiments in a completely germ-free environment, or ships could land upon it for water and supplies of air. The water was pure and the air breathable, but it had no other present utility. Such was the case with an overwhelming number of Earth-type planets when first discovered in the exploration of the galaxy. Life simply hadn't started there.

So the ship which first landed upon it made due note for the Galactic Directory and went away, and no other ship came near the planet for eight hundred years.

But nearly a millennium later, the Seed-Ship *Orana* arrived. It landed and carefully seeded the useless world. It circled endlessly above the clouds, dribbling out a fine dust comprised of the spores of every conceivable microorganism that could break down rock to powder and turn the powder to organic matter. It also seeded with moulds and fungi and lichens, and everything that could turn powdery primitive soil into stuff on which higher forms of life could grow. The *Orana* seeded the seas with plankton. Then it, too, went away.

Centuries passed. Then the Ecological Preparation Ship *Ludred* swam to the planet from space. It was a gigantic ship of highly improbable construction and purpose. It found the previous seeding successful. Now there was soil which swarmed with minute living things. There were fungi which throve monstrously. The seas stank of teeming minuscule life-forms. There were even some novelties on land, developed by strictly local conditions. There were, for example,

paramecium as big as grapes, and yeasts had increased in size so that they bore flowers visible to the naked eye. The life on the planet was not aboriginal, though. It had all been planted by the seed-ship of centuries before.

The *Ludred* released insects, it dumped fish into the seas. It scattered plant-seeds over the continents. It treated the planet to a sort of Russell's Mixture of living things. The real Russell's Mixture is that blend of simple elements in the proportions found in suns. This was a blend of living creatures, of whom some should certainly survive by consuming the now habituated flora, and others which should survive by preying on the first. The planet was stocked, in effect, with everything it could be hoped might live there.

But at the time of the *Ludred's* visit of course no creature needing parental care had any chance of survival. Everything had to be able to care for itself the instant it burst its egg. So there were no birds or mammals. Trees and plants of divers sorts, and fish and crustaceans and insects could be planted. Nothing else.

The *Ludred* swam away through emptiness.

There should have been another planting, centuries later still, but it was never made. When the Ecological Preparation Service was moved to Algol IV, a file was upset. The cards in it were picked up and replaced, but one was missed. So that planet was forgotten. It circled its sun in emptiness. Cloud-banks covered it from pole to pole. There were hazy markings in certain places, where high plateaus penetrated the clouds. But from space the planet was featureless. Seen from afar, it was merely a round white ball—white from its cloud-banks and nothing else.

But on its surface, in its lowlands it was nightmare.

Especially was it nightmare—after some centuries—for the descendants of the human beings from the space-liner *Icarus*, wrecked there some forty-odd generations ago. Naturally, nobody anywhere else thought of the *Icarus* any more. It was not even remembered by the descendants of its human cargo, who now inhabited the planet. The wreckage of the ship was long since hidden under the seething, furiously striving fungi of the boil. The human beings on the planet had forgotten not only the ship but very nearly everything—how they came to this world, the use of metals, the existence of fire, and even the fact that there was such a thing as sunlight. They lived in the lowlands, deep under the

cloud-bank, amid surroundings which were riotous, swarming, frenzied horror. They had become savages. They were less than savages. They had forgotten their high destiny as men.

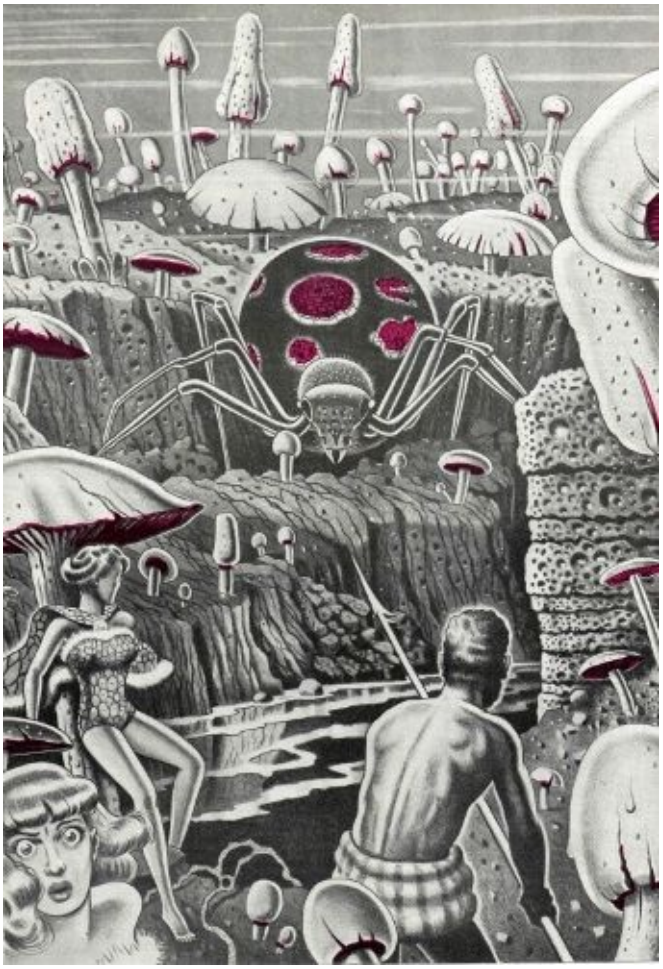
Dawn came. Grayness appeared overhead and increased. That was all. The sky was a blank, colorless pall, merely mottled where the clouds clustered a little thicker or a little thinner, as clouds do. But the landscape was variegated enough! Where the little group of people huddled together, there was a wide valley. Its walls rose up and up into the very clouds. The people had never climbed those hillsides.

They had not even traditions of what might lie above them, and their lives had been much too occupied to allow of speculations on cosmology. By day they were utterly absorbed in two problems which filled every waking minute. One was the securing of food to eat, under the conditions of the second problem, which was that of merely staying alive.

There was only one of their number who sometimes thought of other matters, and he did so because he had become lost from his group of humans once, and had found his way back to it. His name was Burl, and his becoming lost was pure fantastic accident, and his utilization of a fully inherited power to think was the result of extraordinary events. But he still had not the actual habit of thinking. This morning he was like his fellows.

All of them were soaked with wetness. During the night—every night—the sky dripped slow, spaced, solemn water-drops during the whole of the dark hours. This was customary. But normally the humans hid in the mushroom-forests, sheltered by the toadstools which now grew to three man-heights. They denned in small openings in the tangled mass of parasitic growths which flourished in such thickets. But this last night they had camped in the open. They had no proper habitations of their own. Caves would have been desirable, but insects made use of caves, and the descendants of insects introduced untold centuries before had shared in the size-increase of*paramecium* and yeasts and the few true plants which had been able to hold their own. Mining-wasps were two yards long, and bumble-bees were nearly as huge, and there were other armored monstrosities which also preferred caves for their own purposes. And of course the humans could not build habitations, because anything men built to

serve the purpose of a cave would instantly be preempted by creatures who would automatically destroy any previous occupants.



The humans had no fixed dens at any time. Now they had not even shelter. They lacked other things, also. They had no tools save salvaged scraps of insect-armor—great sawtoothed mandibles or razor-pointed leg-shells—which they used to pry apart the edible fungi on which they lived, or to get at the morsels of meat left behind when the brainless lords of this planet devoured each other. They had not even any useful knowledge, except desperately accurate special knowledge of the manners and customs of the insects they could not defy. And on this special morning they concluded that they were doomed. They were going to be killed. They stood shivering in the open, waiting for it to happen.

It was not exactly news. They had had warning days ago, but they could do nothing about it. Their home valley, to be sure, would have made any civilized human being shudder merely to look at it, but they had considered it almost

paradise. It was many miles long, and a fair number wide, and a stream ran down its middle. At the lower end of the valley there was a vast swamp, from which at nightfall the thunderously deep-bass croaking of giant frogs could be heard. But that swamp had kept out the more terrifying creatures of that world. The thirty-foot centipedes could not cross it or did not choose to. The mastodon-sized tarantulas which ravaged so much of the planet would not cross it save in pursuit of prey. So the valley was nearly a haven of safety.

True, there was one clotho spider in its ogre's castle nearby, and there was a labyrinth spider in a minor valley which nobody had ever ventured into, and there were some—not many—praying-mantises as tall as giraffes. They wandered terribly here and there. But most members of insect life here were absorbed in their own affairs and ignored the humans. There was an ant-city, whose foot-long warriors competed with the humans as scavengers. There were the bees, trying to eke out a livelihood from the great, cruciform flowers of the giant cabbage-plants and the milkweeds when water-lilies in the swamps did not bear their four-foot blooms. Wasps sought their own prey. Flies were consumers of corruption, but even the flies two feet in length would shy away from a man who waved his arms at it. So this valley had seemed to these people to be a truly admirable place.

But a fiend had entered it. As the gray light grew stronger the shivering folk looked terrifiedly about them. There were only twenty of the people now. Two weeks before there had been thirty. In a matter of days or less, there would be none. Because the valley had been invaded by a great gray furry spider!

There was a stirring, not far from where the man-folk trembled. Small, inquisitive antennae popped into view among a mass of large-sized pebbles. There was a violent stirring, and gravel disappeared. Small black things thrust upward into view and scurried anxiously about. They returned to the spot from which they had emerged. They were ants, opening the shaft of their city after scouting for danger outside. They scratched and pulled and tugged at the plug of stones. They opened the ant-city's artery of commerce. Strings of small black things came pouring out. They averaged a foot in length, and they marched off in groups upon their divers errands. Presently a group of huge-jawed soldier-ants appeared, picking their way stolidly out of the opening. They waited

stupidly for the workers they were to guard. The workers came, each carrying a faintly greenish blob of living matter. The caravan moved off. The humans knew exactly what it was. The green blobs were aphids—plant lice: ant-cows—small creatures sheltered and guarded by the ants and daily carried to nearby vegetation to feed upon its sap and yield inestimable honeydew.

Something reared up two hundred yards away, where the thin mist that lay everywhere just barely began to fade all colorings before it dimmed all outlines. The object was slender. It had a curiously humanlike head. It held out horrible sawtoothed arms in a gesture as of benediction—which was purest mockery. Something smaller was drawing near to it. The colossal praying mantis held its pose, immovable. Presently it struck downward with lightning speed. There was a cry. The mantis rose erect again, its great arms holding something that stirred and struggled helplessly, and repented its unconsonanted outcry. The mantis ate it daintily as it struggled and screamed.

The humans did not watch this tragedy. The mantis would eat a man, of course. It had. The only creatures immune to its menace were ants, which for some reason it would not touch. But it was a mantis' custom after spotting its prey to wait immobile for the unlucky creature lo come within its reach. It preferred to make its captures that way. Only if a thing fled did the mantis pursue with deadly ferocity. Even then it dined with monstrous deliberation as this one dined now. Still, mantises could be seen from a distance and hidden from. They were not the terror which had driven the humans even from their hiding-places.

It had been two weeks since the giant hunting-spider had come through a mountain pass into this valley to prey upon the life within it. It was gigantic even of its kind. It was deadliness beyond compare. The first human to see it froze in terror. It was disaster itself. Its legs spanned yards. Its fangs were needle-sharp and feet in length—and poisoned. Its eyes glittered with insatiable, insane blood-lust. Its coming was ten times more deadly to the unarmed folk than a Bengal tiger loose in the valley would have been.

It killed a man the very first day it was in the valley, leaving his sucked-dry carcass, and going on to destroy a rhinoceros-beetle and a cricket—whose deep-bass cries were horrible—and proceeded down the valley, leaving only death behind it. It had killed other men and women since. It had caught four

children. But even that was not the worst. It carried worse, more deadly, more inevitable disaster with it.

Because, bumping and bouncing behind its abdomen as it moved, fastened to its body with cables of coarse and discolored silk, the hunting-spider dragged a burden which was its own ferocity many times multiplied. It dragged an egg-bag. The bag was larger than its body, four feet in diameter. The female spider would carry this burden—cherishing it—until the eggs hatched. Then there would be four to five hundred small monsters at large in the valley. And from the instant of their hatching they would be just such demoniac creatures as their parents. They would be small, to be sure. Their legs would span no more than a foot. Their bodies would be the size of a man's fist. But they could leap two yards, instantly they reached the open air, and their inch-long fangs would be no less envenomed, and their ferocity would be in madness, in insanity and in stark maniacal horror equal the great gray fiend which had begot them.

The eggs had hatched. Today—now—this morning—they were abroad. The little group of humans no longer hid in the mushroom-forests because the small hunting-spiders sought frenziedly there for things to kill. Hundreds of small lunatic demons roamed the valley. They swarmed among the huge toadstools, killing and devouring all living things large and small. When they encountered each other they fought in slavering, panting fury, and the survivors of such duels dined upon their brothers. Small truffle-beetles died, clicking futilely. Infinitesimal grubs, newly hatched from butterfly eggs and barely six inches long, furnished them with tidbits. But they would kill anything and feast upon it.

A woman had died yesterday, and two small gray devils battled murderously above her corpse.

Just before darkness a huge yellow butterfly had flung itself agonizedly aloft, with these small dark horrors clinging to its body, feasting upon the juices of the body their poison had not yet done to death.

And now, at daybreak, the humans looked about despairingly for their own deaths to come to them. They had spent the night in the open lest they be trapped in the very forests that had been their protection. Now they remained in clear view of the large gray murderer should it pass that way. They did not dare to hide because of that ogreish creature's young, who panted in their blood-lust as they scurried here and there and everywhere.

As the day became established, the clouds were gray—gray only. The night-mist thinned. One of the younger women of the tribe—a girl called Saya—saw the huge thing far away. She cried out, choking. The others saw the monster as it leaped upon and murdered a vividly colored caterpillar on a milkweed near the limit of vision. The milkweed was the size of a tree. The caterpillar was four yards long. While the enormous victim writhed as it died, not one of the humans looked away. Presently all was still. The hunting-spider crouched over its victim in obscene absorption. Having been madness incarnate, it now was the very exemplar of a horrid gluttony.

Again the humans shivered. They were without shelter. They were without even the concept of arms. But it was morning, and they were alive, and therefore they were hungry. Their desperation was absolute, but desperation to some degree was part of their lives. Yet they shivered and suffered. There were edible mushrooms nearby, but with the deadly small replicas of the hunting-spider giant roaming everywhere, any movement was as likely to be deadly as standing still to be found and killed. The humans murmured to one another, fearfully.

But there was the young man called Burl, who had been lost from his tribe and had found it again. The experience had changed him. He had felt stirrings of atavistic impulses in recent weeks—the more especially when the young girl Saya looked at him. It was not normal, in humans conditioned to survive by flight, that Burl should feel previously unimagined hunger for fury—a longing to hate and do battle. Of course men sometimes fought for a particular woman's favor, but not when there were deadly insects about. The carnivorous insects were not only peril, but horror unfaceable. So Burl's sensations were very strange. On this planet a courtship did not usually involve displays of valor. A man who was a more skillful forager than the foot-long ants was an acceptable husband. Warriors did not exist.

Burl did not even know what a warrior was. Yet today the sullen, unreasonable impulses to conduct what he could not quite imagine were very strong. He knew all the despairing terror the others felt. But he also was hungry. The sheer doom that was upon his group did not change the fact that he wanted to eat, nor did it change the fact that he felt queer when the girl Saya looked at him. Because she was terrified, the same sort of atavistic process was at work in her. She looked to Burl. Men no longer served as protectors against enemies so

irresistible as giant spiders. It was not possible. But when Burl realized her regard his chest swelled. He felt a half-formed impulse to beat upon it. His new-found reasoning processes told him that this particular fear was different in some fashion from the terrors men normally experienced. It was. This was a different sort of emergency. Most dangers were sudden and either immediately fatal or somehow avoidable. This was different. There was time to savor its meaning and its hopelessness. It seemed as if it should be possible to do something about it. But Burl was not able, as yet, to think what to do. The bare idea of doing anything was unusual, now. Because of it, though, Burl was able to disregard his terror when Saya regarded him yearningly.

The other men muttered to each other of the sudden death in the mushroom thickets. No less certain death now feasted on the dead yellow caterpillar. But Burl abruptly pushed his way clear of the small crowd and scowled for Saya to see. He moved toward the nearest fungus-thicket. An edible mushroom grew at its very edge. He marched toward it, swaggering. Men did not often swagger on this planet.

But then he ceased to swagger. His approach to the mingled mass of toadstools and lesser monstrosities grew slower. His feet dragged. He came to a halt. His impulse to combat conflicted with the facts of here and now. His flesh crawled at the thought of the grisly small beasts which now might be within yards. These thickets had been men's safest hiding-places. Now they were places of surest disaster.

He stopped, with a coldness at the pit of his stomach. But as it was a new experience to be able to have danger come in a form which could be foreseen, so Burl now had a new experience in that he was ashamed to be afraid. Somehow, having tacitly undertaken to get food for his companions, he could not bring himself to draw back while they watched. But he did want desperately to get the food in a hurry and get away from there.

He saw a gruesome fragment of a tragedy of days before. It was the emptied, scraped, hollow leg-shell of a beetle. It was horrendously barbed. Great, knife-edged spines lined its edge. They were six inches in length. And men did not have weapons any more, but they sometimes used just such objects as this to dismember defenseless giant slugs they came upon.

Burl picked up the hollow shell of the leg-joint. He shook it free of clinging moulds—and small things an inch or two in length dropped from it and scurried frantically into hiding. He moved hesitantly toward the edible mushroom which would be food for Saya and the rest. He was four yards from the thicket. Three. Two. He needed to move only six feet, and then slice at the flabby mushroom-head, and he would be at least an admirable person in the eyes of Saya.

Then he cried out thinly. Something small, with insane eyes, leaped upon him from the edge of a giant toadstool.

It was, of course, one of the small beasts which had hatched from the hunting-spider's egg-bag. It had grown. Its legs now spanned sixteen inches. Its body was as large as Burl's two fists together. It was big enough to enclose his head in a cage of loathesomeness formed by its legs, while its fangs tore at his scalp. Or it could cover his chest with its abominableness while its poison filled his veins, and while it feasted upon him afterward....

He flung up his hands in a paralytic, horror-stricken attempt to ward it off. But they were clenched. His right hand did not let go of the leg-section with its razor-sharp barbs.

The spider struck the beetle-leg. He felt the impact. Then he heard gaspings and bubblings of fury. He heard an indescribable cry which was madness itself. The chitinous object he had picked up now shook and quivered of itself.

The spider was impaled. Two of its legs were severed and twitched upon the ground before him. Its body was slashed nearly in half. It writhed and struggled and made beastly sounds. Thin, colored fluids dripped from it. A disgusting musky smell filled the air. It strove to reach and kill him as it died. Its eyes looked like flames.

Burl's arm shook convulsively. The small thing dropped to the ground. Its remaining legs moved frantically but without purpose.

It died, though its leg continued to twitch and stir and quiver.

Burl remained frozen, for seconds. It was an acquired instinct; a conditioned reflex which humans had to develop on this world. When danger was past, one stayed desperately still lest it return. But Burl's thoughts were now not of horror but a vast astonishment. He had killed a spider! He had killed a thing which would have killed him! He was still alive!

And then, being a savage, and an animal, as well as a human being, he acted according to that highly complicated nature. As a savage, he knew with strict practicality that it was improbable that there was another baby spider nearby. If there had been, they would have fought each other. As an animal, he was again hungry. As a human being, he was vain.

So he moved closer to the toadstool-thicket and put his hand out and broke off a great mass of the one edible mushroom at the edge. A noisesome broth poured out and little maggots dropped to the ground and writhed there in it. But most of what he had broken off was sound. He turned to take it to Saya. Then he saw the dropped weapon and the spider. He picked up the weapon.

The spider's legs still twitched, though futilely. He spiked the small body on the beetle-leg's spines. He strode back to the remnant of his tribe with a peculiar gait that even he had not often practiced.

It was rather more pronounced than a swagger. It was a strut.

They trembled when they saw the dead creature he had killed. He gave Saya the food. She took it, looking at him with bright and intense eyes. He took a part of the mushroom for himself and ate it, scowling. Thoughts were struggling to form in his mind. He was not accustomed to thinking, but he had done more of it than any other of the pitiful group about him.

He felt eyes watching him. There were five adult men in this group besides himself, and six women. The rest were children, from gangling adolescents to one mere infant in arms. They were a remarkably colorful group at the moment, had he only known it. The men wore yellow-and-gold-brown loin-cloths of caterpillar-fur, stripped from the drained carcasses of creatures that the formerly resident clothed spider had killed. The women wore cloaks of butterfly-wing, similarly salvaged from the remnants of a meal left unfinished by a finicky or engorged praying mantis. The stuff was thick and leathery, but it was magnificently tinted in purples and yellows.

Time passed. The mushroom Burl had brought was finished. Some eyes always explored the clear ground around this group. But other eyes fixed themselves upon Burl. It was not a consciously questioning gaze. It was surely not a hopeful one. But men and women and children looked at him. They marveled at him. He had dared to go and get food! He had been attacked by one of the creatures who doomed them all, but he was not dead! Instead, he had

killed the spider! It was marvelous! It was unparalleled that a man should kill anything that attacked him!

The doomed small group regarded Burl with wondering eyes. He brushed his hands together. He looked at Saya. He wished to be alone with her. He wished to know what she thought when she looked at him. Why she looked at him. What she felt when she looked at him.

He stood up and said dourly:

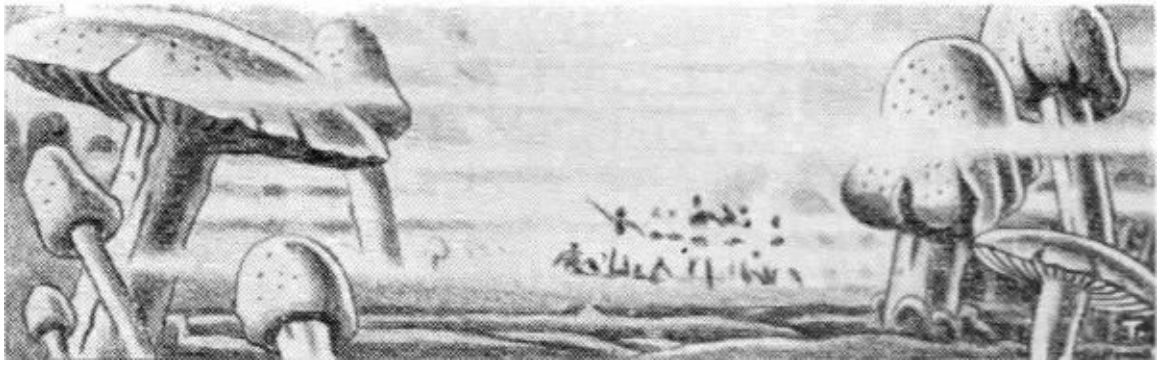
"Come!"

She moved timidly and gave him her hand. He moved away. There was but one way that any human being on this planet would think to move, from this particular spot just now—away from the still-feasting gigantic horror whose offspring he had killed. The folk shivered near the edge of the first upward slope of the valley wall. Burl moved in that direction. Toward the slope. Saya went with him.

Before they had gone ten yards a man spoke to his wife. They followed Burl, with their three children. Five yards more, and two of the remaining three adult men were hustling their families in his wake also. In seconds the last was in motion.

Burl moved on, unconscious of any who followed him, aware only of Saya. The procession, absurd as it was, continued in his wake simply because it had begun to do so. A skinny, half-grown boy regarded Burl's stained weapon. He saw something half-buried in the soil and moved aside to tug at it. It was part of the armor of a former rhinoceros-beetle. He went on, rather awkwardly holding a weapon which might have been called a dagger, eighteen inches long, except that no dagger would have a hand-guard nearly its own length in diameter.

They passed a struggling milkweed plant, no more than twenty feet high and already scabrous with scale and rusts upon its lower parts. Ants marched up and down its stalk in a steady, single file, placing aphids from the ant-city on suitable spots to feed, and to multiply as only parthenogenic aphids can do. But already on the far side of the milkweed, an ant-lion climbed up to do murder among them. The ant-lion was the larval form the lace-wing fly, of course. Aphids were its predestined prey.



Burl continued to march, holding Saya's hand. The reek of formic acid came to his nostrils. But that was only ants. The slope grew steeper. Massacre began behind him on the tree-sized milkweed. The ant-lion which even when it was but half an inch long, on Earth, could bite through the skin of a man—the ant-lion reached the pasturing cows. It plunged into slaughter. It was demoniac. It was such ghastly ferocity that the eggs from which its kind hatched were equipped, each one, with a plastic column to hold it well away from the object on which the clutch of eggs were laid. But for this precaution by the maternal lace-wing fly, the first of her brood to hatch would devour its unhatched brothers and sisters. This ant-lion charged into the placidly feeding aphids on the milkweed plant. It seized one and crushed it, holding it aloft so that the juices of its body would pour into the ant-lion's mouth. Almost instantly, it seemed, the mild-eyed aphid was a shrunken empty sack. The ant-lion seized another. The remaining aphids fed placidly while their enemy did vast slaughter among them.

Clickings and a shrill stridulation sounded. Warrior-ants climbed with stupid ferocity to offer battle.

Burl moved on to a minor eminence. He reached its top and looked sharply about him with the caution that was the price of existence on this world. Two hundred feet away, a small scurrying horror raged and searched among the rough-edged layers of what on other worlds was called paper-mould or rock-tripe. Here it was thick as quilting, and infinitesimal creatures denned under it. The sixteen-inch spider devoured them, making gluttonous sounds. But it was busy, and all spiders are relatively short-sighted.

Burl turned to Saya—and realized that all the human folk had followed him. One of the adults was reaching fearfully for part of a discarded cricket-shell in

the ground. He tore free an emptied, sickle-shaped jaw. It was curved and sharp and deadly if properly wielded. The man had seen Burl kill something. He tried vaguely to imagine killing something himself. He was not too successful. Another man tugged at the ground. The skinny boy was practicing thrusts with his giant dagger.

Two of the adults were armed, without any clear idea of what to do with their arms. But Burl knew, now.

He regarded them angrily. He had not meant to desert them, or even to take Saya permanently from among them. Humans had little enough of satisfaction on this planet. The scared company of their kind was one of the most important. So Burl did not resent that they had followed him. He did resent that they were near when he wanted to talk to Saya in what he did not yet think of as lover-like seclusion.

They halted, regarding him humbly. They had been hungry, and he had found food for them. They had been paralyzed by terror, and he had dared to move. So they moved with him. They might have followed anybody else, but only Burl had initiative—so far. They trustfully waited to follow and to imitate him for so long as panic numbed their ability to think for themselves.

Burl opened his mouth to shout furiously at them. But it was not a good idea for humans to draw attention. Spiders did not hunt by scent, but sound sometimes drew them. Burl closed his mouth again, in a taut straight line. The men looked at him supplicatingly. They had never been lost, and so had never learned to think even a little. Burl had learned to think in a rudimentary fashion and now he suddenly perceived that it was pleasing to have all the tribe regard him so worshipfully, even if not in quite the same fashion as Saya. He was suddenly aware that even as Saya had obeyed him when he told her to come with him, they would obey. He had, at the moment, no commands to give, but he immediately invented one for the pleasure of seeing it carried out.

"*I carry sharp things*," he said sternly. "I killed a spider. Go find *sharp things* to carry."

They were a meek and abject folk, and they were desperately in need of something to do to take their minds from the uselessness of doing anything at all.

They moved to obey. Saya would have loosened her hand and obeyed, too,

but Burl held her beside him. One of the women, with a child three years old, laid the child down by Burl's feet while she went fearfully to seek some fragment of a dead creature, that would meet Burl's specification of sharpness.

Burl heard a stifled scream. A ten-year-old boy stood paralyzed, staring in an agony of horror at something which had stepped from behind a misshapen fungoid object.

It was a pallidly greenish creature with a small head and enormous eyes. It was a very few inches taller than a man. Its abdomen swelled gracefully into a pleasing, leaf-like shape. The boy faced it, paralyzed by horror, and it stood stock-still. Its great, hideously spiny arms were spread out in a pose of pious benediction.



"The boy faced it, paralyzed by horror."

It was a partly-grown praying mantis, not very long hatched. It stood rigid, waiting benignly for the boy to come closer. If he fled, it would fling itself after him with ferocity beside which the fury of a tiger would seem kittenish. If he approached, its fanged arms would flash down, pierce his body, and hold him inextricably fast by the spikes that were worse than trap-claws. And of course it would not wait for him to die before it began its meal.

The small party of humans stood frozen. They were filled with horror for the boy. They were cast into a deep abyss of despair by the sight of a half-grown mantis, because if there was one such miniature insect-dinosaur in the valley, there would be many others. Hundreds of others. This meant there had been a hatching of them. And they were as deadly as spiders.

But Burl did not think in such terms just now. Vanity filled him. He had commanded, and he had been obeyed. But now obedience was forgotten because there was this young praying mantis. If men had ever thought of fighting such a creature, it could have destroyed any number of them by pure ferocity and superiority of armament. But Burl raged. He ran toward the spot. Even mantises were sometimes frightened by the unexpected. Burl seized a lumpish object barely protruding from the ground. It looked like a rock. It was actually a flattened ball-fungus, feeding on the soil through thin white threads beneath it. Burl wrenched it free and hurled it furiously at the young monster.

Insects simply do not think. Something came swiftly at it, and the mantis flashed its ghastly arms to seize and kill its attacker. The ball-fungus was heavy. It literally knocked the mantis backward. The boy fled frantically. The insect fought crazily against the thing it thought had assailed it.

The humans gathered around Burl hundreds of yards away—again uphill. The slope of the mountain-flank was marked here. They gathered about Burl because of an example set by the woman who had left her three-year-old child behind. Saya, in the unfailing instinct of a girl for a small child, had snatched it up when Burl left her. Then she had joined him because the instinct which had made her obey him in starting off—it was not quite the same instinct which moved the others—also bade her follow him wherever he went. The mother of the child went to retrieve her deposit. Other figures moved cautiously toward him. The tribe was reconvened.

The floor of the valley seemed a trifle obscured. The mist that hung always in the air made it seem less distinct; less actual; not quite as real as it had been.

Burl gulped and said sternly:

"Where are the sharp things?"

The men looked at one another, numbly. Then one spoke despairingly, ignoring Burl's question. "Now," said the man dully, "there was not only the hunting-spider in the valley, but its young. And not only the young of the hunting-spider, but the young of a mantis ... It was hard to stay alive at the best of times. Now it had become impossible ..."

Burl glared at him. It was neither courage nor resolution. He had come to realize what a splendid sensation it was to be admired by one's fellows. The more he was admired, the better. He was enraged that people thought to despair.

"I," said Burl haughtily, "am *not* going to stay here. I go to a place where there are neither spiders nor mantises. Come!"

He held out his hand to Saya. She gave the child to its mother and look his hand. Burl stalked haughtily away, and she went with him. He went uphill. Naturally. He knew there were spiders and mantises in the valley. So many that to stay there was to die. So he went away from where they were.

Burl had found out that adulation was enjoyable and authority delectable. He had found that it was pleasant to be a dictator. And then he had been disregarded. So he marched furiously away from his folk, in exactly the fashion of a spoiled child refusing to play any longer. He happened to march up the mountainside toward the cloud-bank that he considered the sky. He had no conscious intent to climb the mountain. He did not intend to lead the others. He meant to sulk, by punishing them through the removal of his own admirable person from their society. But they followed him.

So he led his people upward. It has happened on other planets, in other manners. Most human achievements come about through the daring of those who strive.

The sun was very near. It shone upon the top of the cloud-bank and the clouds glowed with a marvelous whiteness. It shone upon the mountain-peaks where they penetrated the clouds, and the peaks were warmed, and there was no

snow anywhere despite the height. There were winds here where the sun shone. The sky was very blue. At the edge of the plateau where the cloud-bank lay below, the mountainsides seemed to descend into a sea of milk. Great undulations in the mist had the seeming of waves, which moved with great deliberation toward the shores. They seemed sometimes to break against the mountain-wall where it was cliff-like, and sometimes they seemed to flow up gentler inclinations like water flowing up a beach.

All this was in the slowest of slow motion, because the cloud-waves were sometimes miles from crest to crest.

The look of things was different on the plateau, too. This part of the unnamed world, no less than the lowlands, had been seeded with life on two separate occasions. Once with bacteria and moulds and lichens to break up the rocks and make soil of them, and once with seeds and insects-eggs and such living things as might sustain themselves immediately upon hatching. But here on the heights the conditions were drastically unlike the lowland tropic moisture. Different things had thriven, and in quite different fashion.

Here moulds and yeasts and rusts were stunted by the sunlight. Grasses and weeds and trees survived, instead. This was an ideal environment for plants that needed sunlight to form chlorophyll, and chlorophyll to make use of the soil that had been formed. So here was vegetation that was nearly Earth-like. And there was a remarkable side-effect on the fauna which had been introduced at the same time and in the same manner as down below. In coolness which amounted to a temperate climate there could be no such frenzy of life as formed the nightmare-jungles in the lowlands. Plants grew at a slower tempo than fungi, and less luxuriantly. There was no adequate food-supply for large-sized plant-eaters. Insects which were to survive in sunshine could not grow to be monsters. Moreover, the nights were chill. Many insects grow torpid in the cool of a temperate-zone night, but warm up to activity soon after sunrise. But a large creature, made torpid by cold, will not revive so quickly. If large enough, it will not become fully active until close to dusk. On the plateau, the lowland monsters would starve in any case. But more—they would have only a fraction of a day of full activity.

There was a necessary limit then, to the size of the insects that lived above the clouds. The life on the plateau would not have seemed horrifying at all to

humans living on other planets. Save for the absence of birds to sing and lack of a variety of small mammals, the untouched sunlit plateau with its warm days and briskly chill nights would have impressed most men as an ideal habitation.

But Burl and his companions were hardly prepared to see it that way at first glimpse. Certainly if told about it beforehand, they would have viewed it with despair.

But they did not know beforehand. They toiled upward, their leader moved by such ridiculous motives as have sometimes caused men to achieve greatness throughout all history. Back on Earth, two great continents were discovered by a man trying to get spices to conceal the gamey flavor of half-spoiled meat. The power that drives mile-long space-craft, and that lights and runs the cities of the galaxy, was first developed because it could be used in bombs to kill other men. There were precedents for Burl leading his fellows into sunshine merely because he was angered that they ceased to admire him.

The trudging, climbing folk were high above the valley, now. The thin mist that was never absent anywhere had hidden their former home, little by little. They climbed a steeply slanting mountain-flank. The stone was mostly covered by ragged, bluish-green rock-tripe in partly overlapping sheets. Such stuff is always close behind the bacteria which first attack a rock-face. On a slope, it clings while soil is washed downward as fast as it forms. The people never ate it. It produced frightening cramps. In time they would learn that if thoroughly dried it can he soaked to pliability again and cooked to a reasonable palatability. But so far they knew neither dryness nor fire.

Nor had they ever known such surroundings as presently enveloped them. A slanting, stony mountainside which stretched up frighteningly to the very sky. Grayness overhead. Grayness, also, to one side—the side away from the mountain. And equal grayness below. The valley in which they lived could no longer be seen at all. Trudging and scrambling up the interminable incline, the people of Burl's personal following gradually realized the strangeness of their surroundings. As one result, they grew sick and dizzy. To them it seemed that the solid earth had tilted, and might presently tilt further. There was no horizon, but they had never seen a horizon. So they felt that what had been *down* was now partly *behind*, and they feared lest a turning universe let them fall ultimately toward the grayness they considered sky.

In this frightening strangeness, their only consolation was the company of their fellows. To stop would be to be abandoned in this place where all values were turned topsy-turvy. To go back—but none of them could imagine descending again to be devoured as one-third of their number already had been. If Burl had stopped, his followers would have squatted down and shivered together miserably, and waited for death. They had no thought of adventure nor any hope of safety. The only goodnesses they could imagine were food and the nearness of other humans. They clung together, obsessed by the dread of being left alone.

Burl's motivation was no longer noble. He had started uphill in a fit of sulks, and he was ashamed to stop.

They came to a place where the mountain-flank sank inward. There was a flat area, and behind it there was a winding cañon of sorts, like a vast crack in the mountain's substance. Burl breasted the curving edge, and walked on level ground. Then he stopped short.

The mouth of the cañon was perhaps fifty yards from the lip of the downward slope. There was this level space, and on it there were toadstools and milkweed, and there was food. It was a small, isolated asylum for life such as they were used to. It could have been that here they could have found safety. But it wasn't that way.

They saw the web at once. It was slung from between the opposite cliff-walls by cables two hundred feet long. Its radiating cables reached down to anchorages on stone. The snare-threads, winding out and out in that logarithmic spiral which men on other planets had noted thousands of years before—the snare-threads were a yard apart. The web was set for giant game. It was empty now, but Burl searched keenly and saw the tight-rope-cable leading from the very center of the web to a rocky shelf some fifty feet above the cañon's floor. At its end he saw the spider. It waited there, almost invisible against the stone, with one furry leg touching the cable that led to its waiting-place so that the slightest touch on any part of the web would warn it instantly.

Burl's followers accumulated behind him. They stared. They knew, of course, that a web-spider will not leave its snare under any normal circumstances. They were not afraid of that. But they looked at the ground

between the web and themselves.

It was a charnel-house of murdered creatures. Half-inch-thick wing-cases of dead beetles. The cleaned-out carcasses of other giants. The ovipositor of an ichneumon-fly—six feet of slender, springy, deadly-pointed tube—and abdomen-plates of bees and draggled antennae of moths and butterflies.

Something very terrible lived in this small place. The mountainsides were barren of food for big flying things. Anything which did fly so high for any reason would never land on sloping, foodless stone. It would land here. And very obviously it would die. Because something—something—killed them as they came. It denned back in the cañon where they could not see. It dined here.

The humans looked and shivered. All but Burl. He deliberately chose for himself a magnificent lance grown by one dead creature for its own defense. He pulled it out of the ground and cleaned it with his hands. He seemed absorbed, but he was terribly aware of the inner depths of the cañon. He was actually pretending, for the sake of what he believed his dignity.

Fearfully, the other humans imitated him in choosing weapons from the armory of the devoured. Then Burl stalked grandly to one side and began to climb again. His people followed him in numbed silence. They were filled with dread, but it was not quite terror. Insects do not stalk their prey. The deadly unseen monster of the cañon had not attacked them. Therefore, it did not know they were there. And therefore they were safe from it until it appeared. But none of them desired to stay.

The slope lessened here, and half a mile further on there was a small thicket of mushrooms. From within it came the cheerful loud clicking of some small beetle, arrived at this spot nobody could possibly know how, but happily ensconced in a twenty-yard patch of jungle above a hollow that had gathered soil through the centuries. There were edible mushrooms in the thicket.

The humans ate. Naturally. And here they realized that they were no longer doomed by the creatures in the valley. Since their climb began they had seen no dangerous thing except the one gigantic, motionless web-spider. They had left the valley and its particular dangers behind.

A man exclaimed in naïve astonishment. He was eating raw mushroom at the moment, and his mouth was full. But abruptly it occurred to him that their doom was lifted. He mentioned the fact in a sort of startled wonder.

"We will stay here," he added happily. "There is food."

And Burl regarded him with knitted brows. Burl was well on the way to becoming spoiled. He had tasted power over his folk, and he found himself jealous of any decision by anybody else.

"I go on," he said haughtily. "Now! You may stay behind if you wish—alone!"

He broke off food for the journey. He held out his hand to Saya. He went on. And again he went upward because to go back was to go to the cañon of the unknown killer. And his folk docilely followed him. They did not really reason about it. To follow him had become a pattern, more or less precarious. In time it could become a habit. Over a period of years it could even become a tradition.

The procession marched on and up. Burl noticed that the air seemed clearer, here. It was not the misty, quasi-transparent stuff of the valley. He could see for miles to right and left, and the curvatures of the mountain-face. But he could not see the valley.

Then he realized that the cloud-bank he saw was finite—an object. He had never thought of it specifically before. To him it had seemed simply the sky.

Now he saw an indefinite lower surface which yet definitely hid the heights toward which he moved. He and his followers were less than a thousand feet below it. It appeared to Burl that presently he would run into an obstacle that would simply keep him from going any further. But until that happened he obstinately continued to climb.

The thing which was the sky appeared to stir. It moved. A little higher, and he could see that there were parts of it which were lower than he was. They moved also. But they did not approach him. And he had no experience of anything inimical which did not plunge upon its victims. Therefore he was not afraid.

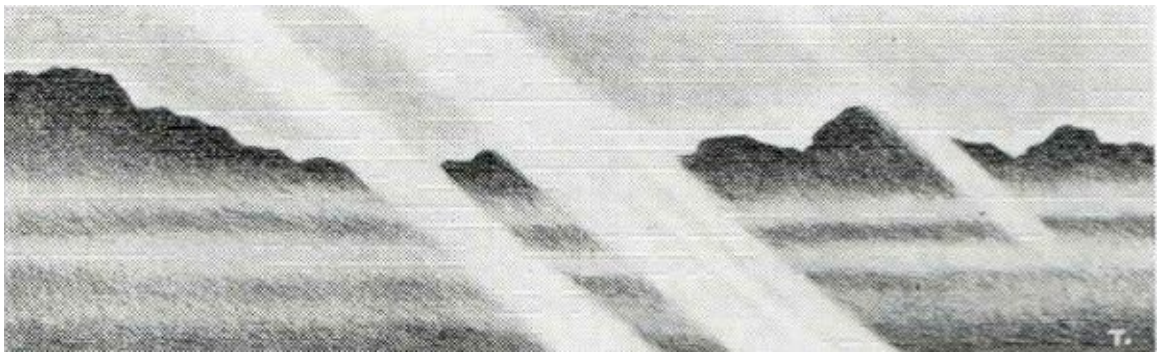
In fact, a little later he observed that the whiteness retreated before him, and he was pleased. Weak things such as humans fled aside when predators approached. Here was something which fled aside at his approach. His followers undoubtedly observed the same phenomenon. He had killed a spider. He was a remarkable person. This unknown white stuff was afraid of him.

Burl, with bland conceit, marched confidently through the cloud-bank, ever climbing. At its thickest, he could see only feet in each direction, but always

when he advanced threateningly upon opacity, it cleared before him.

Presently the gray light grew brighter. Burl and his folk were accustomed to a shadowless illumination such as fungi could endure—the equivalent of a heavily overcast day on an Earth-type planet. Now the mist about him took on a luminosity which was of a different kind. Suddenly he noticed the silence. He had never known even comparative silence before in all his life. His ears had been assailed every minute since he had been born by a din which was the noise of creatures. By stridulations, by chirpings, by screams, or at the least by the clicking of armor or the deep-toned pulsations of wings. He had always lived in the uproar of frenzied struggle. Now, that hellish chorus of shrieks and cries and mating-calls was cut off. The lower surface of the cloud-bank reflected it. Burl and his people moved upward through an unparalleled stillness.

They fell silent, marveling. They heard each other's movements. They could hear each other's voices. But they moved in a vast quietness over stones which here were not even lichen-covered, but glistened with wet. And all about them a golden glow hung in the very air. Stillness, and quietude, and golden light which grew stronger and stronger and stronger....



It was very remarkable when they came up through the sea of mist upon a shore of sunshine, and saw blue sky and sunlight for the first time. The light smote upon their pink skins and brilliantly colored furry garments. It glinted in changing, ever-more-colorful flashes upon the cloaks made of butterfly wings. It sparkled upon the great lance carried by Burl in the lead, and the quite preposterous weapons borne by his followers.

The little party of twenty humans waded ashore through the last of the thinning white stuff which was cloud. They gazed about them with blinking, wondering, astounded eyes. The sky was blue. There was green grass. And there

was sound. The sound was of wind blowing in the trees and sunshine.

They heard insects, too, but they did not know what it was they heard. The shrill, small musical whirrings, the high-pitched small cries which made up a strange new elfin melody, were totally strange. All things were novel to their eyes, and an enormous exultation filled them. From deep-buried ancestral memories, they knew that this was somehow right, was somehow normal. And they breathed clean air for the first time in many generations.

Burl even shouted, in triumph, and his voice rang echoing among rocks.

The plateau rang with the shouting of a man in triumph!

They had enough food for days. They had brought it from the isolated thicket not too far beneath the clouds. Had they found other food immediately, they would have settled down comfortably, in the fashion normal to creatures whose idea of bliss is a secure hiding-place and food on hand. Somehow they believed that this high place was secure. But it was not a hiding-place. And though they did accept, with the simplicity of children and savages, that they had no enemies here, their first quest, nevertheless, was for a place in which they could conceal themselves.

They found a cave. It was small to hold all of them, so that they would be crowded in it, but, as it turned out, that was fortunate.

At some time it had been occupied by some other creature, but the dirt which floored it had settled flat and there were no recent tracks. It retained faint traces of an odor which was unfamiliar but not unpleasant. It had no connotation of danger.

Ants stank of formic acid plus the musky odor of their particular city and kind. One could tell not only the kind of ant but what hill they came from, from a mere sniff at a well-traveled ant-trail. Spiders had their own hair-raising odor. The smell of a praying-mantis was acrid, and of beetles decay, and of course those bugs whose main defense was smell gave off an effluvium which tended to strangle all but themselves.

The cave's smell was quite different. The humans thought vaguely that it might be another kind of man. Actually, it *was* the smell of a warm-blooded animal. But Burl and his fellows knew of no warm-blooded creatures but themselves.

They had come above the clouds a bare two hours before sunset—of which they knew nothing. For an hour they marveled, staying close together. They were astounded by the sun, more particularly since they could not look at it. But presently, being savages, they accepted it with the matter-of-factness of children.

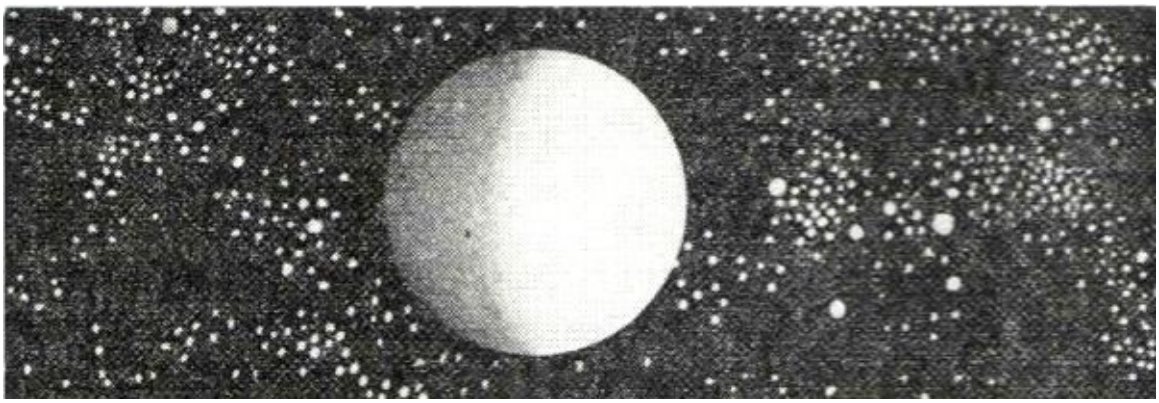
They could not cease to wonder at the vegetation about them. They were accustomed only to gigantic fungi, and a few feverishly growing plants striving to flower and bear seed before being devoured. Here they saw many plants, and at first no insects at all. However, they looked only for the large things they were accustomed to.

They were astounded by the slenderness of the plants. Grass fascinated them, and weeds. A large part of their courage came from the absence of debris upon the ground. In the valley, the habitation of a trapdoor spider was marked by grisly trophies—armor emptied of all meat but not yet rotted by the highly specialized bacteria which flourished upon chitin. The hunting-ground of even a mantis was marked by discarded, transparent beetle-wings and sharp spiny bits of armor, and mandibles not tasty enough to be consumed. Here, in the first hour of their exploration, they saw no sign that any insect from the lowlands had ever come to this place at all. But they interpreted the fact quite correctly as rarity, rather than complete absence of huge creatures blundering up into the sunlight.

They were relieved that they had found a cave. There was no thicket of trees close-growing enough to shelter them. They were ludicrously amazed when they found that trees were hard and solid, because the fungi they knew were easily cut by sawtoothed tools. They found nothing to eat, but they were not yet hungry. They did not worry about it while they still had bits of edible mushroom from their climb.

When the sun sank low and the crimson colorings filled the western horizon, they shivered. They watched the glory of their first sunset with scared, incredulous eyes. Yellows and reds and purples reared toward the zenith. It became possible to look and gaze directly at the sun. They saw it descend behind something they could not guess at. Then there was dark.

The fact stunned them. So night came like this!



Then they saw the stars as they winked singly into being. And the folk from the lowland crowded frantically into the cave with its faint odor of having once been occupied. They filled the cave tightly. But Burl was somewhat reluctant to admit his fear, and Saya lingered close to him. They were the last to enter.

Nothing happened. Nothing. The sounds of evening continued. They were strange but infinitely soothing and somehow what night-sounds ought to be. Burl and the others could not possibly analyze it, but for the first time in many generations they were in an environment really similar to that intended for their race. It had a rightness and a goodness about it which was perceptible for all its novelty. And because Burl had once been lost from his tribe, he was capable of estimating novelties a little better than the rest.

He listened to the night-noises from close by the cave's small entrance. He heard the breathing of his tribesmen. He felt the heat of their bodies, keeping the crowded enclosure warm enough for all. Saya was close beside him. She held fast to his arm for reassurance. He was wakeful, and thinking very busily and very painfully.

Saya was filled with a tumult that was combined fear of the unknown and relief from much greater fear of the familiar ... and warm, proud memories of the sight of Burl leading and commanding the others, and memories of the look and feel of sunshine, and pictures of sky and grass and trees which she had never seen before. Emotion-filled memories of Burl as he killed a spider! Flinging a ball-fungus at a hatchling mantis, saving a young boy. Grandly leading the others up the mountainside which it had never occurred to anybody else to climb. Keeping onward sternly when it seemed that the solid ground had twisted

and would drop them into a misplaced sky. And now, between her and the doorway to the strange and very beautiful night outside.

Saya felt an absorbed, impassioned, delectable disquiet from the touch of Burl's arm beneath her fingers.

He stirred. She whispered a question.

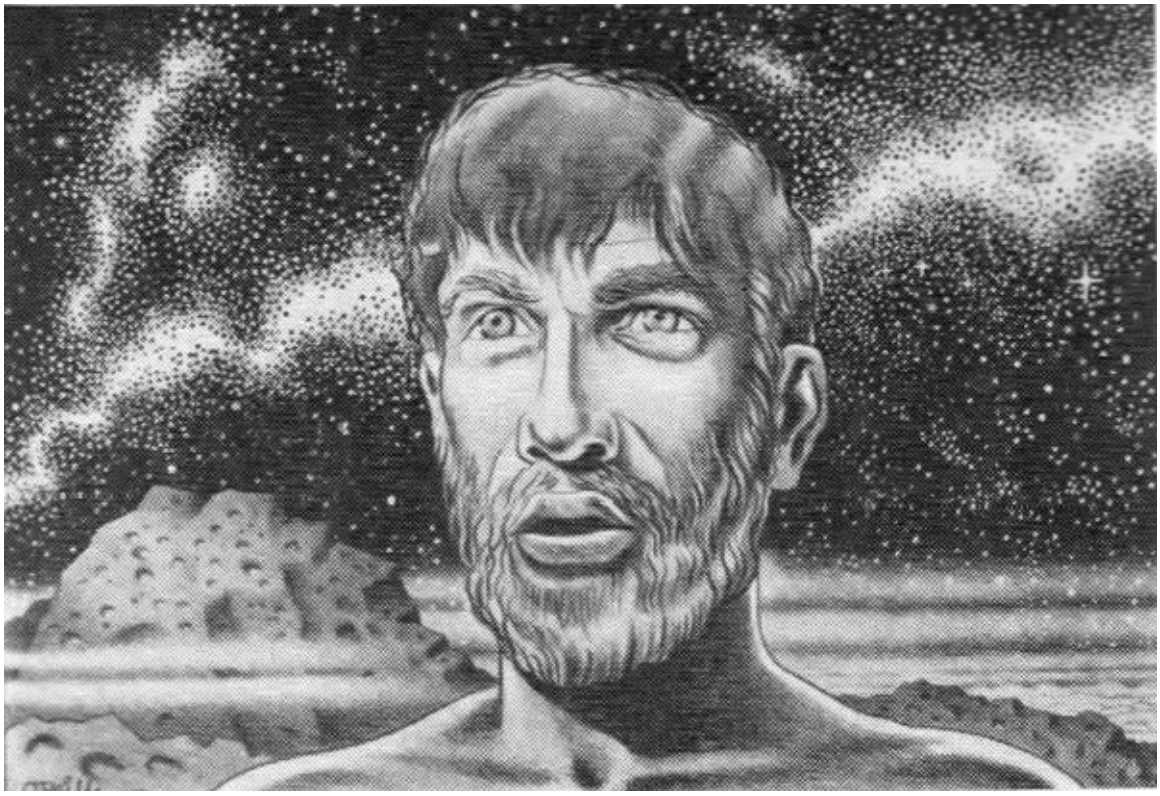
"I am going out," he murmured in her ear. "I wish to see the lights. To see if they come nearer, or move."

It had occurred to him that the first few stars they had seen glowed in darkness like the giant fireflies of the valley. They were comparable in size to all the enlarged insect kingdom. They were a yard and more in length, and sometimes at night they soared and wheeled above the lowland fungus jungles, and the segmented larval females of their kind, which never grew wings, grew frantic at the sight. They climbed recklessly upon the flat tops of toadstools and waved their dimmer twinned lanterns at the flying males.

But this was not the lowland. Burl freed his arm from Saya's fingers. He crept through the constricted opening of the cave, carrying his lance before him. He already had a vague idea that it should be not only an instrument but a weapon. He imagined stabbing enemy creatures with it—but only vaguely, as yet.

He stood upright in the open air. There was coolness. Night had fallen, but only a little while since. There were smells in the air such as Burl had never smelled before—green things growing, and the peculiar clean odor of wind that has been bathed in sunshine, and the peculiarly satisfying fragrance of coniferous trees.

But Burl raised his eyes to the heavens. He saw the stars in all their glory, and he was the first man in at least forty generations to look at them from this planet. There were myriads upon myriads of them, varying in brightness from stabbing lights to infinitesimal twinklings. They were of every possible color. They hung in the sky above him, immobile and unthreatening. They had not come nearer. They were very beautiful.



"… he was the first man in … forty generations to look at them."

Burl stared. And then he noticed that he was breathing deeply, with a new zest. He was filling his lungs with clean, cool, fragrant air such as men were intended to breathe from the beginning, and of which Burl and many others had been deprived. It was almost intoxicating to feel so splendidly alive and unafraid.

There was a rustling. Saya stood beside him, trembling a little. To leave the others had required great courage. But she had come to realize that if any danger befell Burl she wished to share it. So she had come. They shared the starlight.

They heard the nightwind and the orchestra of night-singers. They wandered aside from the cave-mouth, and Saya found completely primitive and wholly atavistic pride in the courage of Burl, who was actually not afraid of the dark! Her own uneasiness became merely something to give more savor to her pride in him. She stayed close beside him, not only for reassurance but also for joy in being close to him.

Presently they heard a new sound in the night. It was very far away and not

in the least like any sound they had ever heard before. It changed in pitch. Insect-cries do not. It was a baying, yelping sound. It rose in pitch, and held the higher note, and abruptly dropped in pitch before it ceased. Minutes later it came again.

Saya shivered, but Burl said thoughtfully:

"That is a good sound."

He didn't know why. Saya shivered once more. She said reluctantly:

"I am cold."

It had been a rare sensation in the lowlands. It came only after one of the infrequent thunderstorms, when wetted human bodies were exposed to the gusty winds that otherwise rarely blew there. But here the nights grew cold, after sundown. The heat in the ground radiated to outer space at night, not being trapped by a layer of clouds. Before dawn, the temperature would be close to freezing, though anything worse than a light fleeting hoar-frost would be rare on this plateau.

The two of them went back to the cave. It was warm there. The cave was so packed with humans that their body-heat kept the air from growing chill. Burl and Saya crouched among the rest, and became drowsy and comfortable. Presently Saya dropped off to sleep, her hand trustfully in Burl's.

But he remained awake for a long time, blinking. He thought of the stars, but they were too strange. He thought of the trees and grass. But most of the impressions of this upper world were so remote from previous knowledge that he could only accept them as they were and defer reflection upon them until later. But he did feel an enormous complacency, what with having brought his followers to an effective paradise of safety, and having arrived at a completely satisfactory emotional status with Saya.



But the last thing he actually thought about, before his eyes blinked shut in sleep, was that yelping noise he had heard in the night. It was totally novel in kind, yet there was something buried among his racial heritages that told him it was good.

Burl was first awake of all the tribesmen and he looked out into a cold and pallid grayness. He saw trees. One side of the cluster was brightly lighted, the other side was dark. He heard tiny singing noises of the creatures of this place. Presently he crawled out of the cave to scout for danger.

The air was biting in its chill. It was an excellent reason why giant insects could not survive here, but it was particularly invigorating as he breathed it in. Then he summoned courage to move to where he could peer at the source of this strange light.

He saw the top of the sun as it peered above the eastern cloud-bank. The sky grew lighter. He blinked at the sun and saw it rise more fully into view. He thought to look upward, and the stars that had bewildered him were nearly gone.

He ran to call Saya.

The rest of the tribe waked as he roused her. One by one they followed, to watch their first sunrise. The men and women gaped at the sun as it filled the east with colorings and rose above the seemingly steaming layer of clouds and then appeared to spring free of the horizon and swim on upward.

The children blinked and shivered and crept to their mothers for warmth. The women enclosed them in their cloaks, and they thawed and peered out once more at the glory of sunshine and the day. Soon, though, they realized that warmth came from the glaring body in the sky. The children presently discovered a game. It was the first game they had ever played, and it consisted

simply of running into a shaded place until they shivered, and then of running out into the sunshine again where they were warm. Until this dawning they had never been free enough from fear to play at all. But this discovery of the nightly chill and of the utility of cloaks for warmth up here as well as it had been against the nightly rain of the lowlands, was a specific suggestion of the value of clothing. Which was to have another significance, a short time later.

In this first dawn of their experience, the tribesmen ate of the edible mushroom they had brought up the mountain-flank. But there was not an indefinite amount of food left. Burl shared the meal Saya brought him. She touched him fondly. But he regarded his happy fellows with something like a scowl. They were quite contented, and they had for the moment no need of his guidance. They did not look to him for orders. And Burl wanted attention.

He spoke abruptly.

"We do not want to go back to the place we came from," he said sternly. "We must look for food here, so we can stay for always. Today we look for food."

It was a seizure of the initiative. It was the linking of what the folk most craved with obedience to Burl. It was the instinct of a leader. The eating men murmured agreement. There was a certain definite idea of goodness—not moral virtue, but of the desirable—becoming associated with what Burl did and what Burl commanded. His tribe was becoming a group of which he was the leader, rather than only a loose association held together only by the fear of solitude.

He led them exploring as soon as they had eaten. All of them, of course. None had yet become confident enough to be left behind. They straggled irregularly behind Burl and Saya. They came to a brook and regarded it with amazement. There were no leeches. No fungus. No swiftly drifting islands of scum. It was clear. Greatly daring, Burl tasted it and it was water, but such as he had never tasted before. It was clean, fresh, sparkling water, not fouled by drainage through mould or rust.

The rest of the tribe tasted. A child slipped on a muddy place and sat down hard on white stuff that yielded and almost splashed. The child howled. Saya picked it up. Then she looked where it had been for spines or small stinging things.

She stared blankly.

She went to Burl with a tiny white thing in her hand. It was a mushroom.

But it was a *tiny*, clean, appetizing object. Saya had no words for it. She was amazed.

Burl smelled it carefully. He tasted it. And it was actually no more and no less than a normal mushroom, growing in a shaded place upon enormously rich soil. It had been protected from sunlight, but it had not the means nor the stimulus to become a monster.

Burl ate it. He carefully composed his features. Then he announced the find to his followers.

There was food here, he told them. But in this splendid world to which he had led them, food was small. There would be no great enemies here, but the food would have to be sought in small objects rather than great ones. They must look at this place and seek others like it, where food would be found....

The tribesmen were doubtful. But they plucked mushrooms—whole ones!—instead of merely breaking off parts of their tops. In deep astonishment they recognized miniatures of what they had known only in gigantic forms. They tasted. The tiny mushrooms had the same savor, but they were not coarse or stringy or tough like the giants. They melted in the mouth! Life in this place to which Burl had led them was delectable! Truly the doings of Burl were astonishing!

When a child found a beetle on a leaf, and they recognized it, they were entranced, for instead of being bigger than a man and a thing to flee from, it was less than an inch in size and helpless against them. From that moment on, they would follow Burl anywhere and obey him in any matter, in the happy conviction that he could do nothing that was not desirable in all respects.

The belief, of course, was not quite accurate. Tender tiny mushrooms as a staple, instead of the tough and chewy provender they were used to, in time would cause them to have toothaches. But they could not anticipate it, and it was actually very far away in time.

They struggled after Burl through vast patches of bushes with thorns on them. They were not used to thorns, and they deeply distrusted the bushes and even the glistening fruit on them, which eventually they would know were blackberries. Near midday they heard noises in the distance.

The sounds were made up of cries of varying pitch, some of which were sharp and abrupt, and others longer and less loud. The people did not

understand them in the least. They could have been the cries of human beings, but they were assuredly not cries of pain. Also they were not language. They seemed to convey an impression of enormous, zestful excitement. They had no overtone of horror. And Burl and his folk had known of no excitement among insects except the frenzy of ferocity. They were unable to imagine even the nature of the tumult.

To Burl the cries seemed to have somewhat the timbre of the yelping sounds he had heard the night before. And he had felt instinctively drawn to that sound. He liked it.

He led the way boldly in the direction of the noise. And presently he came out of breast-high weeds with Saya close behind him and the others trailing. He emerged upon a space of bare stone, a little upraised. He looked down into a small and grassy amphitheater. The tumult came from its center.

A pack of dogs were joyously attacking something that Burl could not see clearly. They *were dogs*. They barked zestfully, and they yelped and snarled and yapped in a dozen different voices, and they darted at the unseen something and darted away, and they were having a thoroughly enjoyable time, though it might not be so good for the thing they attacked.

One of them saw the humans and stopped stock-still and barked. The others whirled and saw the humans as they came out into view. The tumult ceased entirely.

There was silence. The men for the first time saw creatures with only four legs. They had never before seen any moving thing with fewer than six—except men. Spiders had eight. The dogs did not have mandibles. They did not act like insects.

And the dogs saw men, whom they had never seen before. Much more important, they smelled men. And the difference between man-smell and that of insects was vast. Through many generations the dogs had not smelled anything with warm blood save their own kind. The difference in smell between insect and man was so great that the dogs did not react with suspicion, but with curiosity. This was an unparalleled smell. It was even a good smell.

The dogs regarded the men with their heads on one side, sniffing them in the deepest possible amazement—amazement so intense that they could not feel hostility. One of them whined a little because he did not understand.

Peculiarly enough, it was a matter of topography. The plateau which reached above the clouds rose with a steep slope from the valley in which Burl and the others had lived. To westward, however, the highland was subject to an indentation which almost severed it. No more than twenty miles from where Burl's group had climbed to sunshine, there was a much more gradual slope downward. There, mushroom-forests grew almost to the cloud-layer. From there, giant insects strayed up and onto the plateau itself. They could not live on the plateau, of course. There was no food for their insatiable hunger. Especially at night, there was no warmth to keep them active. But they did stray from their normal environment, and some of them reached the sunshine, and perhaps some of them blundered back down to their mushroom-forests again. But those that did not find their way back were chilled to torpor during their first night on the highland. They were only partly active on the second day if, indeed, they were active at all. And few or none recovered from the second night of cold. Certainly none kept their full ferocity and deadliness. And this was how the dogs survived.

Unquestionably the dogs were descended from dogs on the wrecked ship—name now unknown—which had landed on this planet some forty-odd human generations since. The humans had no memories of that ship, and the dogs had surely no traditions. But perhaps because those early dogs had less of intellect, they had possessed more useful instincts. Perhaps dogs were bred by the first desperate generations of humans, to warn them against dangers. But no human civilization could survive the environment of the lowlands. The humans inevitably reverted to the primitive. The environment was not one in which dogs could survive, so somehow they took to the heights. Perhaps dogs survived their masters. Perhaps some were abandoned or driven away. But dogs had reached the heights. And they did survive because of the simple fact that giant insects blundered up after them—and could not survive the proper environment for dogs and men.

There was even a reason why they had not multiplied excessively. The food-supply was limited. When there were too many dogs, their attacks on stumbling insects were more desperate, and made earlier before ferocity of the insects was lessened. And more dogs died. So there was a specific adjustment of the dog

population to the food-supply. There was also a selection of those intelligent enough not to attack foolishly, but not of those whose cowardice left them out of conflict altogether.

These dogs who regarded men with their heads cocked on one side were excellent dogs. Intelligent dogs. They did not attack anything imprudently, and they knew it was not necessary to be more than wary of insects in general. Even spiders, unless they were very newly arrived from the lowlands. So the attitude of men and dogs was that of astonished curiosity rather than that of instant fear or rage. Burl knew that the shaggy, bright-eyed creatures were unlike insects. Actually, they behaved strikingly like men. They were estimating these strange beings, men. Insects never estimated. Those that were not carnivorous had no interest in anything but food, and those that were carnivorous lumbered insanely into battle the instant any prey came to their notice. The dogs did neither. They sniffed. They considered. They were amazed.

Burl said harshly to his group:

"Stay here!"

He walked slowly down into the amphitheater. Saya, disregarding his order, followed him instantly. The dogs moved warily aside. But they raised their noses and sniffed—long, luxurious sniffs. The smell of humankind was a good smell. Dogs had gone hundreds of generations without having it in their nostrils. But before that there were thousands of generations of dogs to whom that smell was a fulfillment.

Burl reached the object the dogs had been attacking. It lay on the grass, throbbing painfully. It had come up from the world below. It was the larva of an azure-blue moth which spread ten-foot wings at nightfall. The time for its metamorphosis was near, and it had gone blindly in search of a place where it could spin its cocoon safely and change to its winged form. It had come to another world—the world above the clouds. It could find no proper place. Its stores of fat had protected it a little from the chill. But the dogs had found it.

Burl considered. It was the custom of wasps to sting creatures like this within a certain special spot—marked for them apparently by a tuft of dark fur.

Burl thrust his lance into that particular spot. The creature died quickly and without agony. The thought to kill was an inspiration, which was the result of continued adventuring. Burl cut off meat for his tribesmen. The dogs offered

no objection. They were well-fed enough. Burl and Saya, together, carried the meat back to the blinking tribesfolk. On the way they passed within two yards of a dog which regarded them with extreme intent and almost a wistful expression. Their smell did not mean game. It meant—something the dog struggled dumbly to remember.

"I have killed the thing," said Burl, in the tone of one speaking to an equal. "You can go and eat it now. I took only part of it."

The dog wagged its tail—and then backed away as if in confusion. After all, matters had not yet progressed to cordiality.

The humans consumed what Burl had brought them. Most of the dogs went to the feast Burl had left. Presently they were back. They had no reason to be hostile. They were fed. The humans offered them no injury. The humans smelled good. The dogs were fascinated by their smell.

Presently they were close about the humans. They were not insects. They were interested. The humans were extremely interested in anything which was interested in them. It was a wholly novel experience. It was the feeling Burl had felt in becoming the tribal leader. Now every human felt a little of it, in the intent regard of the dogs. And everything else was so strange that it was possible to accept anything without question. Even the possible friendliness of unparalleled creatures which assuredly were not of a kind with past enemies.

A similar state of "mind" existed among the dogs.

Saya had more meat than she desired. She looked about among the humans. All were well supplied. She tossed it to a dog. He jerked away alertly, and then sniffed at the meat where it had dropped. A dog can always eat. He ate it.

"I wish you would talk to us," said Saya hopefully.

The dog wagged his tail.

"You do not look like us," said Saya interestedly, "but you act as we do. Not as the—monsters!"

The dog looked at meat in Burl's hand. Burl tossed it. The dog caught it with a quick snap, swallowed it, wagged his tail briefly and came closer. It was a completely incredible action, but dogs and men were blood-kin on this planet. Besides, there was subconscious racial-memory instinct in friendship between man and dog. It was not overlaid by any past experience of either. They were the only warm-blooded creatures on this world. It was kinship felt by both.

Burl stood up and spoke politely to the dog. He addressed him with the same respect he would have given to another man. In all his life he had never felt equal to an insect, but he felt no arrogance toward this dog.

He felt superior only to other men.

"We are going back to our cave," he said politely. "Maybe we will meet again."

He led his tribe back to the cave in which they had spent the previous night. The dogs followed, ranging on either side. They were well-fed, with no memory of hostility to any creature which smelled like men. They had instinct and intelligence. The latter part of the return to the cave—if anybody had been qualified to notice—was remarkably like a group of dogs taking a walk with a group of people. It was companionable. It felt remarkably right.

That night Burl left the cave, as before, to look at the stars. This time Saya went with him, gladly. But as they emerged from the cave-entrance there was a stirring. A dog rose and stretched itself elaborately, yawning the while. When Burl and Saya walked aside from the cave, the dog trotted amiably with them.

They talked to it, embarrassed. And the dog seemed pleased. It wagged its tail.

When morning came the dogs were still waiting hopefully for the humans to come out. They appeared to expect the humans to take another nice long walk, on which they would accompany them. It was a brand-new satisfaction they did not wish to miss. After all, from a dog's standpoint, humans were made to take long walks with, among other things. The dogs greeted the humans with tail-waggings and cordiality.

The friendship of the dogs assured the humans' new status in life. They had ceased to be fugitive game for any insect murderer. They had hoped to be unpursued foragers. But, joined to the dogs, they were raised to the estate of hunters. The men did not domesticate the dogs. They made friends with them. The dogs did not subjugate themselves to the men. They joined them, at first tentatively and then with worshipful enthusiasm. And the partnership was so inherently right that within a month it was as if it had been always. And indeed, except for a few centuries, for them, it had.

The humans had made a permanent encampment by then. There were a few

caves at an appropriate distance from the slope up which most wanderers from the lowlands came. The humans moved into the caves. A child found the chrysalis of a giant butterfly, whose caterpillar form had so offensive an odor that the dogs had not attacked it. But when it emerged from the chrysalis, humans and dogs together assailed it before it could take flight. They ended with warm approval of each other. The humans had great wings with which to make cloaks. And men wore cloaks now—shorter than the women's—but cloaks. They were very useful against the evening chill. When one dawning a vast outcry of dogs awoke the humans, Burl led the rush to the spot, and his great lance did execution which the dogs appeared to admire. Burl wore a moth's feathery antennae, now, bound to his forehead like a knight's plumes. They were very splendid.

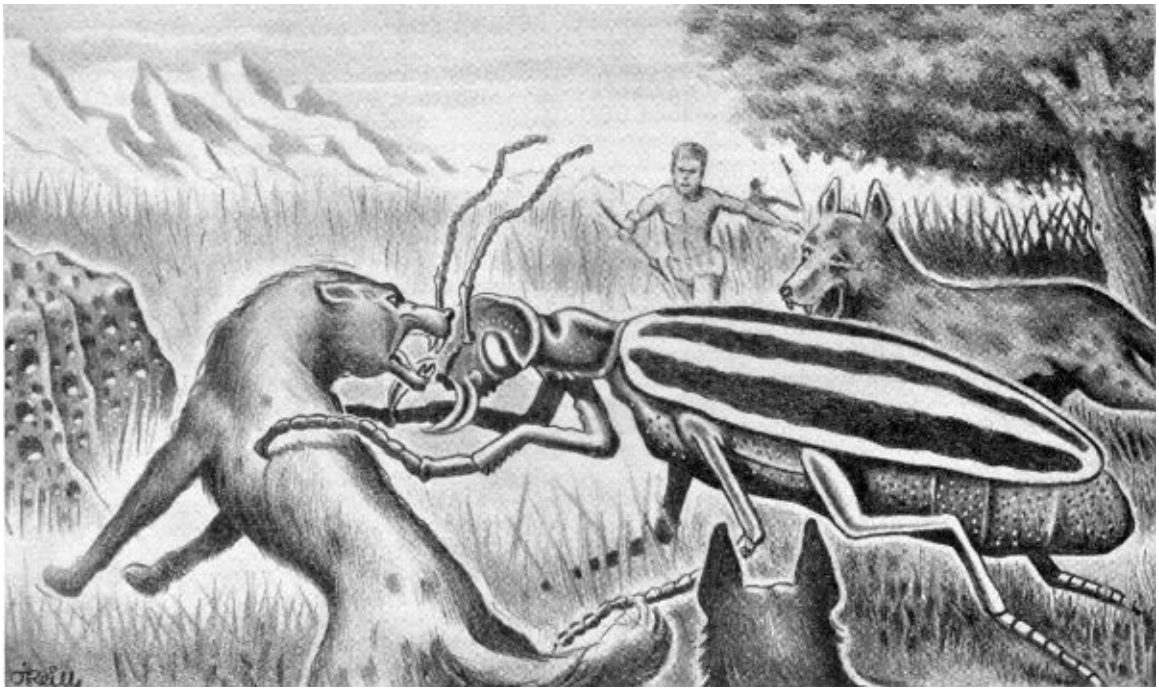
In a single month their entire way of life went through a revolution. The ground was often thorny. A man pierced his foot, and bandaged it with a strip of wing-fabric so he could walk. The injured foot was more comfortable to walk with than the well one. Within a week women were busily contriving divers forms of footgear, to achieve the greatest comfort. One day Saya admired glistening red berries and tried to pluck them, and they stained her fingers. She licked the fingers—and berries were added to the tribe's menu. A veritable orgy of experimentation began. And this was a state of affairs which is very, very rare among human beings. A tribe with an established culture and tradition cannot change without disaster. But men who have abandoned their old ways and are seeking new ones can go far.

Already the dogs were established as sentries and watchmen and friends to every one of the humans. By now mothers did not feel alarmed if a child wandered out of sight. There would be dogs along. No danger could approach a child without vociferous warning from the dogs. Men went hunting, now, with zestful tail-wagging dogs as companions in the chase. By the time a stray monster from the lowlands reached this area, it was dazed and half-numbed by at least one night of bitter cold. Even spiders could not find energy to leap. They fought like fiends, but sluggishly. Men could kill them while dogs kept their attention. Burl killed one the third week on the plateau. He was nerved to the deed by a peculiar feeling that he must be worthy of the courage of the dogs with him at the time.

And presently, while their way of life was still fluid, the permanent pattern of civilization on the nightmare planet was settled. Burl and Saya went out early one morning with the dogs, to hunt for meat for the village. Hunting was easiest in the morning while creatures strayed up the night before were still numbed. Often, hunting was merely butchery of an enfeebled monster to whom any sort of movement was enormous effort.

This morning the humans moved briskly. The dogs roamed exuberantly through the brush before them. They were five miles from the village when the dogs bayed game some distance ahead. And Burl and Saya ran to the spot hand in hand—which was something of a change from their former actions at the thought of a giant creature of the insect kind—and found the dogs dancing and barking around one of the most ferocious and most ghastly of the carnivorous beetles. It was not too large, to be sure. Its body might have been four feet long, but its horrid mandibles added three feet more.

Those scythe-like objects gaped wide—opening sidewise as a beetle's jaws do—and snapped hideously, swinging about as the dogs dashed at them. The legs were spurred and spiked and armed with dagger-like spines. Burl plunged into the fight.



"Those scythe-like objects gaped wide … as the dogs dashed at

them.“

The great gaping mandibles clicked and clashed. They were capable of disemboweling a man or snapping a dog’s body in half without effort. There were whistling noises as the beetle breathed through its abdominal spiracles. It fought furiously, making frantic plunges at the dogs who dashed in and out to torment and bewilder it while they created the most zestfully excited of uproars.

There was something beside this conflict that Burl and Saya should have noticed, but they were instantly intent. The other thing was quite unparalleled. There had been nothing else like it on this planet in many hundreds of years. It moved slowly above the plateau as if examining it. It was half a dozen miles away and perhaps a mile higher when Burl and Saya prepared to intervene professionally on behalf of the dogs. Then it swerved and moved directly toward them. It moved swiftly.

But it was silent, and they did not know at all. Burl leaped in with a lance-thrust at the tough integument where an armored leg joined the body. He missed, and the monster whirled. Then Saya flashed her cloak before the beetle, so that it seemed a larger and nearer antagonist. As the creature whirled again, Burl thrust once more and a hind-leg crumpled.

Instantly the thing limped crazily. A beetle does not use its legs like four-legged creatures. It moves the two end legs on one side with the center leg on the other, so that always it is braced on an adjustable tripod. But it cannot adjust readily to crippling.

A dog snatched at a spiny lower leg and crunched and darted away. The expressionless, machine-like horror uttered a formless, deep-bass cry and was spurred to all possible ferocity. The fight became a thing of furious movement and uproar, with Burl striking once at a multiple eye so the pain would deflect it from a charge on Saya, and Saya again deflecting it with her cloak and once breathlessly trying to strike it with her shorter spear.

Then the beetle sank to the ground, all three legs on one side crippled. The remaining three thrust and thrust and struggled terribly and suddenly it was on its back, still striking its gigantic jaws frantically in the hope of murder. But Burl stabbed home between two armor-plates where a ganglion was almost exposed. A thrust killed it instantly.

Burl and Saya smiled at each other. There was a monstrous sound of splintering trees. They whirled. The dogs pricked up their ears. One of them barked defiantly.

Something huge—truly huge!—settled to the ground a bare hundred yards away. It was metal, and there were ports, and it was utterly beyond experience, because, of course, there had been no spaceship landings on this planet in forty-odd human generations. But as Burl and Saya stared blankly at it, a port opened, and men came out, and they waved hopefully to the two barbarically attired figures who had been seen fighting a monster with the help of dogs. Which meant some sort of civilization.

The dogs confirmed it. They sniffed. These, also, were men. And Burl and his tribe had this smell, and were friends. So the dogs trotted forward with the self-confident cordiality of dogs on excellent terms with men—and there was no question of friendship. None at all. The men came forward joyously to talk to Burl and Saya.

There were difficulties, of course. But Burl and Saya had the calm composure of savages, and the alertness of people who are changing the pattern of their lives of their own volition—and finding it very pleasant—and things went swimmingly. There was, on the spaceship, an "educator." They invited Burl to put it on his head. He obliged. And very shortly he understood a new language, and was equipped with a very considerable fund of general information. Among the items of information was the fact that presently he would have a splitting headache—he did—and that the making of records for an educator was so different that it required generations to get all the facts and knowledge for a single type of education down in permanent form.

All of which fitted admirably into the arrangements that the men on the spaceship were anxious to make, and Burl was enthusiastically willing to accede to. He and his folk knew the creatures of the lowlands as nobody else could possibly know them. No electronic educator could possibly make a record making available that knowledge in less than two generations—maybe three. Therefore—

The nightmare world swims in space about its nearby sun. It has a name now, but it does not matter. It has a city on it, which probably matters less. It is a curious city, though. The people in it wear gorgeous colored fur, and cloaks of butterfly wings. The least of the people in that city wear garments which would fetch fortunes on other inhabited worlds. In fact, such garments do. But it is most practical for Burl, and Saya, and their followers to wear such garments. There is no day but that a small, winged flying craft rises from the city to go silently over the plateau until it reaches the space above the cloud-bank, and then dives down into it. It is wise for the occupants and the operators of such small craft to wear garments like the other humans on this planet. They are recognized, that way, when garments such as most planets find suitable would make them seem strange.

They want to be recognized, in the jungles and the noisesome valleys of the lowlands. There are other humans down there. The people of the city, of course, bring their fellows out as fast as they can find them. There is a session with an educator—and a splitting headache afterward—and very soon the folk who have hidden from monsters all their lives are zestfully hunting them with dogs. Presently they are hunting them with flying machines.

It is a nice arrangement. The search for more people in the lowlands is a prosperous business even when it is unsuccessful. The wings of white morph butterflies bring the highest price, but even a common swallow-tail is riches enough. And the fur of caterpillars—duly processed—goes into the holds of the regular spaceliners with the same care given elsewhere to jewels and platinum.

But the nightmare planet has not become a merely sordid place of business. What comforts and what luxuries spaceships can bring are available enough, to be sure. But the city on the plateau, and the homes of the barbarically clad inhabitants are not places to which invitations are coveted for the luxury of them. The planet is a sportman's paradise.

Not long since, the Planet President of *Surmor III* was a guest in Burl's dwelling. Burl is all hard muscle, despite his graying hair, and he and Saya have fitted very beautifully into the sort of civilization that turned out to be congenial to them. They have grown children now, and their home is quite fit to entertain a World President in its richness. But it is small—the size they want it to be.

The atmosphere is oddly informal. There are self-respecting and amiable dogs nearly everywhere. The World President of *Surmor III* was inclined to be stand-offish at first. But he is a sportsman, like Burl. And since the last hunting trip, he is very respectful. After all, there are few planet leaders who will, as they do, for pure sporting joy of the hunt, fight the mastodon-sized tarantula of the lowlands with nothing but a spear—and win.

But Burl does.

THE JEWELS OF APTOR



by SAMUEL R. DELANY

The waves flung up against the purple glowof double sleeplessness. Along the piersthe ships return; but sailing I would gothrough double rings of fire, double fears.So therefore let your bright vaults heave the nightabout with ropes of wind and points of light,and say, as all the rolling stars go, "Ihave stood my feet on rock and seen the sky."

—These are the opening lines from *The Galactica*, by the one-armed poet Geo, the epic of the conflicts of Leptar and Aptor.

PROLOGUE

Afterwards, she was taken down to the sea.

She didn't feel too well, so she sat on a rock down where the sand was wet and scrunched her bare toes in and out of the cool surface.

She turned away, looked toward the water, and hunched her shoulders a little. "I think it was awful," she said. "I think it was pretty terrible. Why did you show it to me? He was just a little boy. What reason could they have possibly had for doing that to him?"

"It was just a film," he said. "We showed it to you so you would learn."

"But it was a film of something that really happened."

"It happened several years ago, several hundred miles away."

"But it did happen; you used a tight beam to spy on them, and when the image came in on the vision screen, you made a film of it, and—But why did you show it to me?"

"What have we been teaching you?"

But she couldn't think, and only had the picture in her mind, vivid movements, scarlets, and bright agony. "He was just a child," she said. "He couldn't have been more than eleven or twelve."

"You are just a child," he said. "You are not sixteen yet."

"What was I supposed to learn?"

"Look around you," he said. "You should see something."

But the picture in her mind was still too vivid, too bright.

"You should be able to learn it right here on this beach, in the trees back there, in the rocks, in the bleached shells around your feet. You do see it; you just don't recognize it." Suddenly he changed his tone. "Actually you're a very

fine student. You learn quickly. Do you remember anything about telepathy? You studied it months ago."

"'By a method similar to radio broadcast and reception,'" she recited, "'the synapse patterns of conscious thoughts are read from one cranial cortex and duplicated in another, resulting in similar sensual impressions experienced—'" Suddenly she broke off. "But I can't do it, so it doesn't help me any!"

"What about history, then?" he said. "You did extremely well during the examination. What good does knowing about all the happenings in the world before and after the Great Fire do you?"

"Well, it's ..." she started. "It's just interesting."

"The film you saw," he said, "was, in a way, history. That is, it happened in the past."

"But it was so—" Again she stopped. "—horrible!"

"Does history fascinate you because it's just interesting?" he asked. "Or does it do something else? Don't you ever want to know what the reason is behind some of the things these people do in the pages of the books?"

"Yes, I want to know the reasons," she said. "Like I want to know the reason they nailed that man to the oaken cross. I want to know why they did that to him."

"A good question," he mused. "Which reminds me, at about the same time as they were nailing him to that cross, it was decided in China that the forces of the universe were to be represented by a circle, half black, half white. But to remind themselves that there was no pure force, no purely unique reason, they put a spot of white paint in the black half and a spot of black paint in the white. Isn't that interesting?"

She looked at him and wondered how he had gotten from one to the other. But he was going on.

"And do you remember the goldsmith, the lover, how he recorded in his autobiography that at age four, he and his father saw the Fabulous Salamander on their hearth by the fire; and his father suddenly smacked the boy ten feet across the room into a rack of kettles, saying something to the effect that little Cellini was too young to remember the incident unless some pain accompanied it."

"I remember that story," she said. "And I remember that Cellini said that

he wasn't sure if the smack was the reason he remembered the Salamander, or the Salamander the reason he remembered the smack."

"Yes, yes!" he cried. "That's it. The reason, the reasons ... Don't you see the pattern?"

"Only I don't know what a Salamander is," she told him.

"Well, it's like the blue lizards that sing outside your window sometimes," he explained. "Only it isn't blue, and it doesn't sing."

"Then why should anyone want to remember it?" she grinned. It was an attempt to annoy him, but he was not looking at her, and was talking of something else.

"And the painter," he was saying, "he was a friend of Cellini, you remember, in Florence. He was painting a picture of "La Gioconda." As a matter of fact, he had to take time from the already crumbling picture of "The Last Supper" of the man who was nailed to the cross of oak to paint her. And he put a smile on her face of which men asked for centuries, 'What is the reason she smiles so strangely?' Yes, the reason, don't you see? Just look around."

"What about the Great Fire?" she asked. "When they dropped flames from the skies and the harbors boiled, that was reasonless. That was like what they did to that boy."

"Oh no," he said to her. "Not reasonless. True, when the Great Fire came, people all over the earth screamed, 'Why? Why? How can man do this to man? What is the reason?' But just look around you, right here. On this beach."

"I guess I can't see it yet," she said. "I can just see what they did to him, and it was awful."

"Well," said the man in the dark robe, "perhaps when you stop seeing what they did so vividly, you will start seeing why they did it. I think it's time for us to go back now."

As she slid off the rock and started walking beside him, barefooted in the sand, she asked, "That boy—I wasn't sure, he was all tied up, but he had four arms, didn't he?"

"He did."

"You know, I can't just go around saying it was awful. I think I'm going to write a poem. Or make something. Or both. I've got to get it out of my head."

"That wouldn't be a bad idea," he mumbled as they approached the trees in

front of the river. “Not at all.”

And several days later, and several hundred miles away ...

CHAPTER I

Waves flung themselves at the blue evening. Low light burned on the wet hulks of ships that slipped by mossy pilings into the docks as water sloshed at the rotten stone embankment of the city.

Gangplanks, chained from wooden pullies, scraped into place on concrete blocks, and the crew, after the slow captain and the tall mate, descended raffishly along the wooden boards which sagged with the pounding of bare feet. In bawling groups, pairs, or singly they howled into the narrow waterfront streets, into the yellow light from open inn doors, the purple shadowed portals leading to dim rooms full of blue smoke and stench of burnt poppies.

The captain, with eyes the color of sea under fog, touched his sword hilt with his fist and said quietly to the mate, “Well, they’re gone. We better start collecting new sailors for the ten we lost at Aptor. Ten good men, Jordde. I’m sick when I think of the bone and broken meat they became.”

“Ten for the dead,” sneered the mate, “and twenty for the living we’ll never see again. Any sailor that would want to continue this trip with us is insane. We’ll do well if we only lose that many.” He was a tall, wire bound man, which made the green tunic he wore look baggy.

“I’ll never forgive her for ordering us to that monstrous island,” said the captain.

“I wouldn’t speak too loudly,” mumbled the mate. “Yours isn’t to forgive her. Besides, she went with them, and was in as much danger as they were. It’s only luck she came back.”

Suddenly the captain asked, “Do you believe the sailor’s stories of magic they tell of her?”

“Why, sir?” asked the mate. “Do you?”

“No, I don’t,” said the captain with a certainty that came too quickly. “Still, with three survivors out of thirteen, that she should be among them, with hardly a robe torn.”

“Perhaps they wouldn’t touch a woman,” suggested the mate, Jordde.

“Perhaps,” said the captain.

"And she's been strange," continued Jordde, "ever since then. She walks at night. I've seen her going by the rails, looking from the sea-fire to the stars, and then back."

"Ten good men," mused the captain. "Hacked up, torn in bits. I wouldn't have believed that much barbarity in the world, if I hadn't seen that arm, floating on the water. It gives me chills now, the way the men ran to the rail to see, pointed at it. And it just raised itself up, like a beckoning, a signal, and then sank in a wash of foam and green water."

"Well," said the mate, "we have men to get."

"I wonder if she'll come ashore?"

"She'll come if she wants, Captain. Her doing is no concern of yours. Your job is the ship and to do what she says."

"I have more of a job than that," and he looked back at his still craft.

The mate touched the captain's shoulder. "If you're going to speak things like that, speak them softly, and only to me."

"I have more of a job than that," the captain repeated. Then, suddenly, he started away, and the mate was following him down the darkening dockside street.

The dock was still for a moment. Then a barrel toppled from a pile of barrels, and a figure moved like a bird's shadow across the opening between mounds of cargo set about the pier.

At the same time two men approached down a narrow street filled with the day's last light. The bigger one threw a great shadow that aped his gesticulating arms behind him on the greenish faces of the buildings. Bare feet like halved hams, shins bound with thongs and pelts, he waved one hand in explanation, while he rubbed the back of the other on his short, mahogany beard.

"You're going to ship out, eh friend? You think they'll take your rhymes and jingles instead of muscles and rope pulling?"

The smaller, in a white tunic looped with a thick leather belt, laughed beneath his friend's rantings. "Fifteen minutes ago you thought it was a fine idea; said it would make me a man."

"Oh, it's a life to make," his hand went up, "and it's a life to break men," and it fell.

The slighter one pushed back black hair from his forehead, stopped, and looked at the ships. "You still haven't told me why no ship has taken you on in the past three months," he said absently, following the rope rigging against the sky like black knife slashes on blue silk. "A year ago I'd never see you in for more than three days at once."

The gesticulating arm suddenly encircled the smaller man's waist and lifted a leather pouch from the wide belt. "Are you sure, friend Geo," began the giant, "that we couldn't use up some of this silver on wine before we go. If you want to do this right, then right is how it should be done. When you sign up on a ship you're supposed to be broke and a little tight. It shows that you're capable of getting along without the inconvenience of money and can hold your liquor, too."

"Urson, get your paw off that." Geo snatched the purse away.

"Now here," countered Urson, reaching for it once more, "you don't have to grab."

"Look, I've kept you drunk five nights now, and it's time to sober up. And suppose they don't take us, who's going—" But Urson, the idea having taken the glow of a game, made another swipe with his big hand.

Geo leapt back with the purse. "Now cut that out," he began; but in leaping, his feet struck the fallen barrel, and he fell backwards to the wet cobbles. The pouch splattered away, jingling.

Both of them scrambled.

Then the bird's shadow moved in the opening between the cargo piles, a slight figure bounded forward, swept the purse up with one hand, pushed himself away from the pile of cargo with another, and there were two more fists pumping at his side as he ran.

"What the devil," began Urson, and then, "What the *devil*!"

"Hey you," called Geo, lurching to his feet. "Come back!" And Urson had already loped a couple of steps after the fleeting mutant, now halfway down the block.

Suddenly, from behind them, like a wine-glass stem snapping, only twenty times as loud, a voice called, "Stop, little thief. Stop."

The running form stopped as though it had hit a wall.

"Come back, now! Come back!"

The figure turned, and docilely started back, the movements so lithe and swift a moment ago, now mechanical.

"It's just a kid," Urson said.

He was a dark-haired boy, naked except for a ragged breech. He approached staring fixedly beyond them toward the boats. And he had four arms.

Now they turned and looked also.

She stood at the base of the ship's gangplank, against what sun still washed the horizon. One hand held something close at her throat, and wind, caught in a veil, held the purple gauze against the red swath at the world's edge, and then dropped it.

The boy, like an automaton, approached her.

"Give that to me, little thief," she said.

He handed her the purse. She took it, and then suddenly dropped her other hand from her neck. The moment she did so, the boy staggered backwards, turned, and ran straight into Urson, who said, "Ooof," and then, "God damn little spider."

The boy struggled to get away like a hydra in furious silence. But Urson held. "You stick around ... Owww!... to get yourself thrashed.... There." The boy got turned, his back to the giant; one arm locked across his neck, and the other hand, holding all four wrists, lifted up hard enough so that the body shook like wires jerked taut, but he was still silent.

Now the woman came across the dock. "This belongs to you, gentlemen?" she asked, extending the purse.

"Thank you, ma'am," grunted Urson, reaching forward.

"I'll take it, ma'am," said Geo, intercepting. Then he recited:

"*Shadows melt in light of sacred laughter.Hands and houses shall be one hereafter.*

"Many thanks," he added.

Beneath the veil, on her shadowed face, her eyebrows raised. "You have been schooled in courtly rites?" She observed him. "Are you perhaps a student at the university?"

Geo smiled. "I was, until a short time ago. But funds are low and I have to get through the summer somehow. I'm going to sea."

"Honorable, but perhaps foolish."

"I am a poet, ma'am; they say poets are fools. Besides, my friend here says the sea will make a man of me. To be a good poet, one must be a good man."

"More honorable, less foolish. What sort of a man is your friend?"

"My name is Urson," said the giant, stepping up. "I've been the best hand on any ship I've sailed on."

"Urson?" said the woman, musing. "The Bear? I thought bears did not like water. Except polar bears. It makes them mad. I believe there was an old spell, in antiquity, for taming angry bears...."

"*Calmly brother bear,*" Geo began to recite."*calm the winter sleep.Fire shall not harm,water not alarm.While the current grows,amber honey flaws,golden salmon leap.*"

"Hey," said Urson. "I'm not a bear."

"Your name means bear," Geo said. Then to the lady, "You see, I have been well trained."

"I'm afraid I have not," she replied. "Poetry and rituals were a hobby of a year's passing interest when I was younger. But that was all." Now she looked down at the boy whom Urson still held. "You two look alike. Dark eyes, dark hair." She laughed. "Are there other things in common between poets and thieves?"

"Well," complained Urson with a jerk of his chin, "this one here won't spare a few silvers for a drink of good wine to wet his best friend's throat, and that's a sort of thievery, if you ask me."

"I did not ask," said the woman, quietly.

Urson huffed.

"Little thief," the woman said. "Little four arms. What is your name?"

Silence, and the dark eyes narrowed.

"I can make you tell me," and she raised her hand to her throat again.

Now the eyes opened wide, and the boy pushed back against Urson's belly.

Geo reached toward the boy's neck where a ceramic disk hung from a leather thong. Glazed on the white enamel was a wriggle of black with a small dot of green for an eye at one end. "This will do for a name," Geo said. "No need to harm him. Snake is his symbol; Snake shall be his name."

"Little Snake," she said, dropping her threatening hand, "how good a thief

are you?" She looked at Urson. "Let him go."

"And miss thrashing his backside?" objected Urson.

"He will not run away."

Urson released him, and four hands came from behind the boy's back and began massaging one another's wrists. But the dark eyes watched her until she repeated, "How good a thief are you?"

With only a second's indecision, he reached into his clout and drew out what seemed another leather thong similar to the one around his neck. He held up the fist from which it dangled, and the fingers opened slowly to a cage.

"What is it?" Urson asked, peering over Snake's shoulder.

The woman gazed forward, then suddenly stood straight. "You ..." she began.

Snake's fist closed like a sea-polyp.

"You are a fine thief, indeed."

"What is it?" Urson asked. "I didn't see anything."

"Show them," she said.

Snake opened his hand, and on the dirty palm, in coiled leather, held by a clumsy wire cage, was a milky sphere the size of a man's eye, lucent through the shadow.

"A very fine thief indeed," repeated the woman in a low voice tautened strangely from its previous brittle clarity. She had pulled her veil aside now, and Geo saw, where her hand had again raised to her throat, the tips of her slim fingers held an identical jewel, only this one in a platinum claw, hung from a wrought gold chain.

Her eyes, unveiled, black as obsidian, raised to meet Geo's. A slight smile lifted her pale mouth and then fell again. "No," she said. "Not quite so clever as I thought. At first I believed he had taken mine. But clever enough. Clever enough. You, schooled in the antiquity of Leptar's rituals, are you clever enough to tell me what these baubles mean?"

Geo shook his head.

A breath passed her pale mouth now, and though her eyes still fixed his, she seemed to draw away, blown into some past shadow by her own sigh. "No," she said. "It has all been lost, or destroyed by the old priests and priestesses, the old poets.

"*Freeze the drop in the handand break the earth with singing.Hail the height of a manand also the height of a woman.*

The eyes have imprisoned a vision ..."

She spoke the lines almost reverently. "Do you recognize any of this? Can you tell me where they are from?"

"Only one stanza of it," said Geo. "And that in a slightly different form." He recited:

"*Burn the grain speck in the handand batter the stars with singing.Hail the height of a man,and also the height of a woman.*"

"Well," said the woman. "You have done better than all the priests and priestesses of Leptar. What about this fragment? Where is it from?"

"It is a stanza of the discarded rituals of the Goddess Argo, the ones banned and destroyed five hundred years ago. The rest of the poem is completely lost," explained Geo. "I found that stanza when I peeled away the binding paper of an ancient tome that I found in the Antiquity Collection in the Temple Library at Acedia. Apparently a page from an even older book had been used in the binding of this one. I assume these are fragments of the rituals before Leptar purged her litanies. I know at least my variant stanza belongs to that period. Perhaps you have received a misquoted rendition; for I will vouch for the authenticity of mine."

"No," she said, almost regretfully. "Mine is the authentic version. So, you too, are not that clever." She turned back to the boy. "But I have need of a good thief. Will you come with me? And you, poet, I have need of one who thinks so meticulously and who delves into places where even my priests and priestesses do not go. Will you come with me?"

"Where are we going?"

"Aboard that ship," she said, smiling toward the vessel.

"That's a good boat," said Urson. "I'd be proud to sail on her, Geo."

"The captain is in my service," the woman told Geo. "He will take you on. Perhaps you will get a chance to see the world, and become the man you wish to be."

Geo saw that Urson was beginning to look uneasy, and said, "My friend goes on whatever ship I do. This we've promised each other. Besides, he is a good sailor, while I have no knowledge of the sea."

"On our last journey," the woman explained, "we lost men. I do not think your friend will have trouble getting a berth."

"Then we'll be honored to come," said Geo. "Under whose service shall we be, then, for we still don't know who you are?"

Now the veil fell across her face again. "I am a high priestess of the Goddess Argo. Now, who are you?"

"My name is Geo," Geo told her.

"Of the Earth, then, your name," she said. "And you, Urson, the bear. And Lamio, the little Snake. I welcome you aboard our ship."

Just then, from down the street, came the captain and the mate, Jordde. They emerged from the diagonal of shadow that lanced over the cobbles, slowly, heavily. The captain squinted out across the ships toward the horizon, the copper light filling his deepening wrinkles and burnishing the planes of flesh around his gray eyes. As they approached, the priestess turned to them. "Captain, I have three men as a token replacement at least for the ones my folly helped lose."

Urson, Geo, and Snake looked at each other, and then toward the captain.

Jordde looked at all three.

"You seem strong," the captain said to Urson, "a sea-bred man. But this one," and he looked at Snake now, "one of the Strange Ones...."

"They're bad luck on a ship," interrupted the mate. "Most ships won't take them at all, ma'am. This one's just a boy, and for all his spindles there, couldn't haul rope or reef sails. Ma'am, he'd be no good to us at all. And we've had too much bad luck already."

"He's not for rope pulling," laughed the priestess. "The little Snake is my guest. The others you can put to ship's work. I know you are short of men. But I have my own plans for this one."

"As you say, ma'am," said the captain.

"But Priestess," began Jordde.

"As you say," repeated the captain, and the mate stepped back, quieted. The captain turned to Geo now. "And who are you?" he asked.

"I'm Geo, before and still a poet. But I'll do what work you set me, sir."

"And you?" Jordde asked Urson.

"I'm a good sea-son of the waves, can stand triple watch without flagging,

and I believe I'm already hired." He looked to the captain.

"But what do they call you?" Jordde asked. "You have a familiar look, like one I've had under me before."

"They call me the handsome sailor, the fastest rope reeler, the quickest line hauler, the speediest sheaf reefer...."

"Your name, man, your name," Jordde demanded.

"Some call me Urson."

"That's the name I knew you by before! Do you think I'd sail with you again, when I myself put it in black and white and sent it to every captain and mate in the dock? For three months now you've had no berth, and if you had none for three hundred years it would be too soon."

Jordde turned to the captain now. "He's a troublemaker, sir, a fight-starter. Though he's as wild as waves and with the strength of mizzen spars, spirit in a man is one thing, and a fight or two the same; but good sailor though he be, I've sworn not to have him on ship with me, sir. He's nearly murdered half a dozen men and probably has murdered half a dozen more. No mate who knows the men of this harbor will take him on."

The Priestess of Argo laughed. "Captain, take him." Now she looked at Geo. "The words for calming the angry bear have been recited before him. Now, Geo, we will see how good a poet you are, and if the spell works." At last she turned toward Urson. "Have you ever killed a man."

Urson was silent a moment. "I have."

"Had you told me that," said the Priestess, "I would have chosen you first. I have need of you also. Captain, you must take him. If he is a good sailor, then we cannot spare him. I will channel what special talents he may have. Geo, since you said the spell, and are his friend, I charge you with his control. Also, I wish to talk with you, poet, student of rituals. Come, you all may stay on board ship tonight."

CHAPTER II

An oil lamp leaked yellow light on the wooden walls of the ship's forecastle. Geo wrinkled his nose, then shrugged.

"Well," said Urson, "this is a pleasant enough hole." He climbed one of the tiers of bunked beds and pounded the ticking with the flat of his hand. "Here,

I'll take this one. Little wriggly arms, you look like you have a strong stomach, so you take the middle. And Geo, sling yourself down in the bottom there." He clumped to the floor again. "The lower down you are," he explained, "the better you sleep, because of the rocking. Well, what do you think of your first forecastle, Geo?"

The poet was silent. As he turned his head, double pins of light struck yellow dots in his dark eyes, and then went out as he turned from the lamp.

"I put you in the bottom because a little rough weather can unseat your belly pretty fast if you're up near the ceiling and not used to it," Urson expanded, dropping his hand heavily on Geo's shoulder. "I told you I'd look out for you, didn't I, friend?"

But Geo turned away and seemed to examine something else.

Urson looked at Snake now, who was watching him from against one wall. Urson's glance was puzzled. Snake's only silent.

"Hey." Urson spoke to Geo once more. "Let's you and me take a run around this ship and see what's tied down where. A good sailor does that first thing—unless he's too drunk. But that lets the captain and the mate know he's got an alert eye out, and sometimes he can learn something that will ease some back-bending later on. What do you say?"

"Not now, Urson," interrupted Geo. "You go."

"And would you please tell me why my company suddenly isn't good enough for you. This sudden silence is a bilgy way to treat somebody who's sworn himself to see that you make the best first voyage that a man could have. Why, I think ..."

"When did you kill a man?" Geo suddenly turned.

The giant stood still, his hands twisting into double knots of bone and muscle. Then they opened. "Maybe it was a year ago," he said softly. "And maybe it was a year, two months, and five days, on a Thursday morning at eight o'clock in the brig of a heaving ship. Which would make it about five days and ten hours."

"How could you kill a man?" Geo asked. "How could you go for a year and not tell me about it, and then admit it to a stranger just like that? You were my friend, we've slept under the same blanket, drank from the same wineskin. But what sort of a person are you?"

"And what sort of a person are you?" said the giant. "A nosy bastard that I'd break in seven pieces if ..." he heaved in a breadth. "If I hadn't promised I'd make no trouble. I've never broken a promise to anyone, alive or dead." The fists formed, relaxed again.

Suddenly he raised one hand, flung it away, and spat on the floor. Then he turned toward the steps to the door.

Then the noise hit them. They both turned toward Snake. The boy's black eyes darted under twin spots of light from the lamp, to Urson, to Geo, then back.

The noise came again, quieter this time, and recognizable as the word *Help*, only it was no sound, but like the fading hum of a tuning fork inside their skulls, immediate, yet fuzzy.

... *You* ... *help* ... *me* ... *together* ... came the words once more, indistinct and blurring into one another.

"Hey," Urson said, "is that you?"

... *Do* ... *not* ... *angry* ... came the words.

"We're not angry," Geo said. "What are you doing?"

I ... *thinking* ... were the words that seemed to generate from the boy now.

"What sort of a way to think is that if everyone can hear it?" demanded Urson.

Snake tried to explain. *Not* ... *everyone* ... *Just* ... *you* ... *You* ... *think* ... *I* ... *hear* ... came the sound again. *I* ... *think* ... *You* ... *hear.*

"I know we hear," Urson said. "It's just like you were talking."

"That's not what he means," Geo said. "He means he hears what we think just like we hear him. Is that right, Snake?"

When ... *you* ... *think* ... *loud* ... *I* ... *hear.*

"I may just have been doing some pretty loud thinking," Urson said. "And if I thought something I wasn't supposed to, well, I apologize."

Snake didn't seem interested in the apology, but asked again, *You* ... *help* ... *me* ... *together.*

"What sort of help do you want?" Geo asked.

"And what sort of trouble are you in that you need help out of it?" added Urson.

You ... *don't* ... *have* ... *good* ... *minds*, Snake said.

"What's that supposed to mean?" Urson asked. "Our minds are as good as

any in Leptar. You heard the way the priestess talked to my friend the poet, here."

"I think he means we don't hear very well," said Geo.

Snake nodded.

"Oh," Urson said. "Well, then you'll just have to go slow and be patient with us."

Snake shook his head. *Get ... hoarse ... when ... shout ... so ... loud.* Suddenly he went over to the bunks. *You ... hear ... better ... see ... too if ... sleep.*

"Sleep is sort of far from me," Urson said, rubbing his beard with the back of his wrist.

"Me too," Geo admitted. "Can't you tell us something more?"

Sleep, Snake said.

"What about talking like an ordinary human being?" suggested Urson, still somewhat perplexed.

Once ... speak, Snake told them.

"You say you could speak once?" asked Geo. "What happened?"

Here the boy opened his mouth and pointed.

Geo stepped forward, held the boy's chin in his hand and examined the face and peered into the mouth. "By the Goddess!" he exclaimed.

"What is it?" Urson asked.

Geo came away now, his face lined in a sickly frown. "His tongue has been hacked out," he told the giant. "And not too neatly, either."

"Who on the seven seas and six continents did a thing like that to you, boy?" Urson demanded.

Snake shook his head.

"Now come on, Snake," he urged. "You can't keep secrets like that from friends and expect them to rescue you from I don't know what. Now who was it hacked your voice away?"

What ... man ... you ... kill ... came the sound.

Urson stopped, and then he laughed. "All right," he said. "I see." His voice rose once more. "But if you can hear thoughts, you know the man already. And you know the reason. And this is what we'd find out of you, and only for help and friendship's sake."

You ... know ... the ... man, Snake said.

Geo and Urson exchanged puzzled frowns.

Sleep, said Snake. *You ... sleep ... now.*

"Maybe we ought to try," said Geo, "and find out what's going on." He crossed to his bunk and slipped in. Urson followed and hoisted himself onto the upper berth, dangling his feet against the wooden support. "It's going to be a long time before sleep gets to me tonight," he said. "You know the rituals and about magic. Aren't the Strange Ones some sort of magic?"

"The only mention of them in rituals says that they are ashes of the Great Fire. The Great Fire was back before the purges, the ones I spoke to the priestess about, so I don't know anything more about them."

"Sailors have stories of the Great Fire," Urson said. "They say the sea boiled, great birds spat fire from the sky, and beasts rose up from the waves and destroyed the harbors. But what were the purges you mentioned?"

"About five hundred years ago," Geo explained, "all the rituals of the Goddess Argo were destroyed. A completely new set were initiated into the temple practices. All references to them were destroyed also, and with them, much of Leptar's history. Stories have it that the rituals and incantations were too powerful. But this is just a guess, and most priests are very uncomfortable about speculating."

"That was after the Great Fire?" Urson asked.

"Nearly a thousand years after," Geo said.

"It must have been a Great Fire indeed if ashes from it are still falling from the wombs of healthy women." He looked down at Snake. "Is it true that a drop of your blood in vinegar will cure gout? If one of you kisses a female baby, will she have only girl children?" He laughed.

"You know those are only tales," Geo said.

"There used to be a one with two heads that sat outside the Blue Tavern and spun a top all day. It was an idiot, though. But the dwarfs and the legless ones that wheel about the city and do tricks, they are clever. But strange, and quiet, usually."

"You oaf," chided Geo, "you could be one too. How many men do you know who reach your size and strength by normal means?"

"You're a crazy liar," said Urson. Then he scrunched his eyebrows together in thought, and at last shrugged. "Well anyway, I never heard of one who could

hear what you thought. It would make me uncomfortable walking down the street." He looked down at Snake between his legs. "Can you all do that?"

Snake, from the middle bunk, shook his head. Urson stretched out on his back, but then suddenly looked over the edge of the berth toward Geo. "Hey, Geo, what about those little baubles she had. Do you know what they are?"

"No, I don't," Geo said. "But she was concerned over them enough." He looked up over the bunk bottom between himself and Urson. "Snake, will you give me another look at that thing?"

Snake held out the thong and the jewel.

"Where did you get it?" Urson asked. "Oh, never mind. I guess we learn that when we go to sleep."

Geo reached for it, but Snake's one hand closed and three others sprang around it. "I wasn't going to take it," explained Geo. "I just wanted to see."

Suddenly the door of the forecastle opened, and the tall mate was silhouetted against the brighter light behind him. "Poet," he called. "She wants to see you." Then he was gone.

Geo looked at the other two, shrugged, and then swung off the berth, made his way up the steps and into the hall.

On deck it was completely dark. As he walked, a door before him opened and a blade of illumination sliced the deck. He jumped.

"Come in," summoned the Priestess of Argo, and he turned into a windowless cabin and stopped one step beyond the threshold. The walls rippled tapestries, lucent green, scarlet. Golden braziers perched on tapering legged tripods beneath plumes of pale blue smoke that lent thin incense in the room, pierced faintly but cleanly into his nostrils like knives. Light lashed the polished wooden newels of a great bed on which sat swirls of silk, damasked satin, brocade. A huge desk, cornered with wooden eagles, was spread with papers, meticulous instruments of cartography, sextants, rules, compasses, and great shabby books were piled on one corner. Above, from the beamed ceiling, hung by thick chains, swayed a branching candelabra of oil cups, some in the hands of demons, the mouths of monkeys, burning in the bellies of nymphs, or between the horns of satyrs' heads—red, clear green, or yellow-white.

"Come in," repeated the priestess. "Close the door."

Geo obeyed.

She walked behind her desk, sat down, and folded her hands in front of her veiled face. "What do you know of the real world, outside Leptar?"

"That there is much water, some land, and mostly ignorance."

"What tales have you heard from your bear friend, Urson? He is a traveled man and should know some of what there is of the earth."

"The stories of sailors," said Geo, "are menageries of beasts that no one has ever seen, of lands for which no maps exist, and of peoples whom no man has met."

She smiled. "Since I boarded this ship I have heard many tales from sailors, and I have learned more from them than from all my priests. You, on the docks there, this evening, have been the only man to give me another scrap of the puzzle except a few drunken seamen, misremembering old fantasies." She paused. "What do you know of the jewels you saw tonight?"

"Nothing, ma'am."

"A common thief hiding on the docks had one; I, a priestess of Argo, possess another; and if you had one, you would probably exchange it for a kiss with some tavern maid. What do you know of the god Hama?"

"I know of no such god."

"You," she said, "who can spout all the rituals and incantations of the white goddess Argo, you do not even know the name of the dark god Hama. What do you know of the Island of Aptor?"

"Nothing, ma'am."

"This boat has been to Aptor once and now will return again. Ask your ignorant friend the Bear to tell you tales of Aptor; and blind, wise poet, you will laugh, and probably he will, too. But I will tell you: his tales, his legends, and his fantasies are not a tithe of the truth, not a tithe. Perhaps you will be no help after all. I am thinking of dismissing you."

"But, ma'am ..." Geo began.

The priestess looked up, having been about to begin some work.

Geo regained himself. "Ma'am, what can you tell me about these things? You have scattered only crumbs. I have extensive knowledge of incantation, poetry, magic, and I know these concern your problem. Give me what information you have, and I will be able to render mine in full. I am familiar with many sailors' tales. True, none of Aptor, or Hama, but I may be able to

collate fragments. I have learned the legends and jargon of thieves through a broad life; this is more than your priests have, I'll wager. I have had teachers who were afraid to touch books I have opened. And I fear no secret you might hold."

"No, you are not afraid," admitted the priestess. "You are honorable, and foolish—and a poet. I hope the first and last will wipe out the middle one in time. Nevertheless, I will tell you some." She stood up now, and drew out a map.

"Here is Leptar," she pointed to one island. Then her finger moved over water to another. "This is Aptor. Now you know as much about it as any ordinary person in Leptar might. Aptor is a barbaric land, uncivilized. Yet they occasionally show some insidious organization. Tell me, what legends of the Great Fire have you heard?"

"I know that beasts are supposed to have come from the sea and destroyed the world's harbors, and that birds spat fire from the sky."

"The older sailors," said the priestess, "will tell you that these were beasts and birds of Aptor. Of course, there is fifteen hundred years of retelling and distortion in a tradition never written down, and perhaps Aptor has simply become a synonym for everything evil, but these stories still give you some idea. Chronicles, which only three or four people have had access to, tell me that once five hundred years ago, the forces of Aptor actually attempted to invade Leptar. The references to it are vague. I do not know how far it went nor how successful it was, but its methods were insidious and very unlike any invasion you may have read of in history. So unlike, that records of it were destroyed, and no mention of it is made in the histories given to school children.

"Only recently have I had a chance to learn how strange and inhuman they were. And I have good reason to believe that the forces of Aptor are congealing once more, a sluggish but huge amoeba of horror. Once fully awake, once launched, it will be irrevocable. Tendrils have reached into us for the past few years, probed, and then withdrawn before they were recognized. Sometimes they dealt catastrophic blows to the center of Leptar's government and religion. All this has been assiduously kept from the people. I have been sent to clear perhaps just one more veil from our ignorance. And if you can help me in that, you are welcome."

"What of the jewels, and of Hama?" inquired Geo. "Is he a god of Aptor under whom these forces are being marshaled? And are these jewels sacred to him in some way?"

"Both are true, and both are not true enough," replied the priestess.

"And one more thing. You say the last attempted invasion by Aptor into Leptar was five hundred years ago? It was five hundred years ago that the religion of Argo in Leptar purged all her rituals and instituted new ones. Was there some connection between the invasion and the purge?"

"I am sure of it," declared the priestess. "But I do not know what it is. However, let me now tell you the story of the jewels. The one I wear at my neck was captured, somehow, from Aptor during that first invasion. That we captured it may well be the reason that we are still a free nation today. Since then it has been guarded carefully in the temple of the Goddess Argo, its secrets well protected, along with those few chronicles which mention the invasion, which ended, incidentally, only a month before the purges. Then, about a year ago, a small hoard of horror reached our shore from Aptor. I cannot describe it. I did not see any of what transpired. But they made their way inland, and managed to kidnap Argo herself."

"You mean Argo incarnate? The highest priestess?"

"Yes. Each generation, as you know, the youngest daughter of the past generation's highest priestess is chosen as the living incarnation of the white Goddess Argo. She is reared and taught by the wisest priests and priestesses. Her youngest daughter, when she dies, becomes Argo. At any rate, she was kidnaped. One of the assailants was hacked down; instantly it decayed, rotted on the floor of the convent corridor. But from the putrescent mass of flesh, we salvaged a second jewel from Aptor. And before it died, it was heard to utter the lines I quoted to you before. So, I have been sent then, to find what I can of the enemy, and to rescue or to find the fate of my sister."

"I will do whatever I can," said Geo, "to help save Leptar and to discover the whereabouts of your sister priestess."

"More than my sister priestess," said the woman softly, "my sister in blood. I am the other daughter of the last Argo: that is why this task fell to me. And until she is found dead, or returned alive ..." here she rose from her bench, "... I am the White Goddess Argo Incarnate."

Geo dropped his eyes as Argo lifted her veil. Once more that evening she held forth the jewel. "There are three of these," she said. "Hama's sign is a black disk with three white eyes. Each eye represents a jewel. With the first invasion, they probably carried all three jewels, for they are the center of their power. Without them, they would have been turned back immediately. With them, they thought themselves invincible. But we captured one, and very soon unlocked its secrets. I have no guards with me. With this jewel I need none. I am as safe as I would be with an army, and capable of nearly as much destruction. When they came to kidnap my sister a year ago, I am convinced they carried both of their remaining jewels, thinking that we had either lost, or did not know the power of the first. Anyway, they reasoned, they had two to our one. But now, we have two, and they are left with only one. Through some complete carelessness, your little thief stole one from me as I was about to board when we first departed two months ago. Today he probably recognized me and intended to exact some fee for its return. But now, he will be put to a true thief's task. He must steal for me the third and final jewel from Hama for me. Then we shall have Aptor, and be rid of their evil."

"And where is this third jewel?" asked Geo.

"Perhaps," said the woman, "perhaps it is lodged in the forehead of the statue of the dark god Hama that sits in the guarded palace somewhere in the center of the jungles of Aptor. Do you think your thief will find himself challenged enough?"

"I think so," answered Geo.

"Somewhere in that same palace is my sister, or her remains. You are to find them, and if she is alive, bring her back with you."

"And what of the jewels?" asked Geo. "When will you show us their power so that we may use them to penetrate the palace of Hama?"

"I will show you their power," said Argo, smiling. With one hand she held up the map over which she had spoken. With the other she tapped the white jewel with her pale fingernail. The map suddenly blackened at one edge, and then flared. Argo walked to a brazier and deposited the flaming paper. Then she turned again to Geo. "I can fog the brain of a single person, as I did with Snake; or I can bewilder a hundred men. As easily as I can fire a dried, worn map, I can raze a city."

"With those to help," smiled Geo, "I think we have a fair chance to reach this Hama, and return."

But the smile with which she answered his was strange, and then suddenly it was completely gone. "Do you think," she said, "that I would put such temptation in your hands? You might be captured, and if so, then the jewels would be in the hands of Aptor once more."

"But with them we would be so powerful...."

"They have been captured once; we cannot take the chance that they be captured again. If you reach the palace, if you can steal the third jewel, if my sister is alive, and if you can rescue her, then she will know how to employ its power to manipulate your escape. However, if you and your friends do not accomplish *all* these things, the trip will be useless; and so perhaps death would be better than a return to watch the wrath of Argo in her dying struggle, for you would feel it more horribly than even the most malicious torture of Aptor's evil."

Geo did not speak.

"Why do you look so strangely?" asked Argo. "You have your poetry, your spells, your scholarship. Don't you believe in their power? Go back to your berth, and send the thief to me." The last words were a sharp order, and Geo turned from the room into the night's darkness.

CHAPTER III

Geo walked down into the forecastle, still deserted except for Urson and Snake. "Well?" asked Urson, sitting up on the edge of his berth. "What did she tell you?"

"Why aren't you asleep?" Geo said heavily. He touched Snake on the shoulder. "She wants to see you now."

Snake stood up, started for the door, but then turned around.

"What is it?" Geo asked.

Snake dug into his clout again and pulled out the thong with the jewel. He walked over to Geo, hesitated, and then placed the thong around the older boy's neck.

"You want me to keep it for you?" Geo asked.

But Snake turned around and was gone.

"I wonder what they do?" said Urson. "Or did you find out. Come on, Geo, give up what she told you."

"Did Snake say anything to you while I was gone?"

"Not a peep," answered Urson. "I came no nearer sleep than I came to the moon. Now come on, what's this about?"

Geo told him.

When he finished, Urson said, "You're crazy. Both you and her."

"I don't think so," Geo said. He concluded his story by recounting Argo's demonstration of the jewel's power.

Urson fingered the stone on Geo's chest. "All that in this little thing? Tell me, do you think you can figure out how it works?"

"I don't know if I want to," Geo said. "It doesn't sound right."

"You're damn straight it doesn't sound right," Urson reiterated. "What's the point of sending us in there with no protection to do something that would be crazy with a whole army. What's she got against us?"

"I don't think she has anything against us," Geo said. "Urson, what stories do you know about Aptor? She said you might be able to tell me something."

"I know that no one trades with it, everyone curses by it, and the rest is a lot of rubbish not worth saying."

"What rubbish?"

"Believe me, it's just bilge water," insisted Urson. "Do you think you could figure out that little stone there, if you had long enough, I mean? She said that the priests five hundred years ago could, and she seems to think you're as smart as some of them. I wouldn't doubt if you could work it."

"You tell me some stories first," said Geo.

"Oh, they talk about cannibals, women who drink blood, things neither man nor animal, and cities inhabited only by death. Sailors avoid it, save to curse by."

"Do you know anything more than that?"

"There's nothing more to know," shrugged Urson.

"She said the stories you'd tell would not be one tenth of the truth."

"She must have meant that there wasn't even a tenth part of the truth in them. And I'm sure she's right. You just misunderstood."

"No, I heard her correctly," Geo assured him.

"Then I just don't believe it. There are half a dozen things that don't match up in all this. First, how that little four-armed fellow happened to be at the pier after two months just when she was coming in. And to have the jewel still, not have traded it, or sold it already...."

"Maybe," suggested Geo, "he read her mind too, when he first stole it, the same way he read ours."

"And if he did, maybe he knows how to work the things. I say let's find out when he comes back. And I wonder who cut his tongue out. Strange one or not, that makes me sick," said the big man.

"About that," Geo started. "Don't you remember? He said you knew the man it was."

"I know many men," said Urson, "but which one of the many I know is it?"

"You really don't know?" Geo asked, quietly.

"You say that in a strange way," Urson said, frowning.

"I'll say the same thing he said," went on Geo. "What man did you kill?"

Urson looked at his hands for a moment, stretched the fingers, turned them over in his lap like meat he was examining. Then, without looking up, he said, "It was a long time ago, friend, but the closeness of it shivers in my eyes. I should have told you, yes. But it comes to me, sometimes, not like a memory, but something I can feel, as hard as metal, taste as sharp as salt, and the wind brings back my voice, his words, so clearly that I shake like a mirror where the figure on the inside pounds his fists on the fists of the man outside, each one trying to break free.

"We were reefing sails in a flesh-blistering rain, when it began. His name was Cat. The two of us were the two biggest men aboard, and that we had been put on the reefing team together meant that this was an important job and one to be done well and right. Water washed our eyes, our hands slipped on wet ropes. It was no wonder my cloth suddenly flung away from me in a gust, billowing down in the rain, flapping against half a dozen ropes and breaking two small stays. 'You clumsy thing' bawled the mate from the deck. 'What sort of fish-fingered sailor, are you?'

"And through the rain I heard Cat laugh from his own spar. 'That's the way luck goes,' he cried, catching at his own cloth that threatened to pull loose. I pulled mine in and bound her tight. The competition that goes rightly between

two fine sailors drove a seed of fury into my flesh that should have bloomed as a curse or a returned jibe, but the rain rained too hard, and the wind was too strong; so I bound my sail with silence.

"I was last down, of course, and with only a few lads below on deck, when I saw why my sail had come loose. A worn mast ring had broken, caused a main rope to fly and my canvas to come tumbling. But the ring also had held the nearly broken aft mast together, and in the wind, a split twice the length of my arm pulled open and snapped to again and again like a child's noise clapper. There was a rope near, and inch thick line coiled on a spike. Holding myself to a rat line by not much more than my toes, I secured the rope and bound the base of the broken pole. Each time it snapped to, I looped it once around and pulled the wet line tight. They call this whipping a mast, and I whipped it till the collar of rope was three feet long to the top of the cleft and she couldn't snap any more. Then I hung the broken ring on a peg near by so I could point it out to the ship's smith and get him to replace the rope with a metal band.

"That evening at mess, with the day's incidents out of my mind and hot soup in my mouth, I was laughing over some sailor's tale about another sailor and another sailor's woman, when the mate strode into the hall. 'Hey, you sea scoundrels,' he bellowed. There was silence. 'Which of you bound up that broken mast aft?'

"I was about to call out, 'Aye, it was me,' when another man beat me by bawling, 'It was the Big Sailor, sir!' That was a name both Cat and I were often hailed by.

"'Well,' snarled the mate, 'the captain says that such good thinking in times so hard as these should be rewarded. He's seen the job and approved.' He took a gold coin from his pocket and tossed it on the table in front of Cat. 'There you go, Big Sailor. But I think it's as much as any man should do.' And then he turned and clomped from the mess hall. A cheer went up for Cat as he pocketed the coin; I couldn't see his face.

"The anger in me started now, but without direction. Should it go to the sailor who'd called out the name of the hero? Naw, for he had been down on deck, and through rain and darkness probably he could not have told me from my rival anyway at that distance. At Cat? But he was already getting up to leave the table. And the first mate, the same first mate of this ship here, friend, that

we're on now, he was out stomping somewhere on deck.

"Perhaps it was this that caused my anger to break out the next morning when we were in calmer weather. A careless salt jarred me in a passage way, and suddenly I was all fists and fire. We scuffled, we banged, we cursed, we rolled. In fact, we rolled right under the feet of the mate who was coming down the steps at the time. He sent a boot into us and eight different curses, and when he recognized me, he sneered, 'Oh, the clumsy one.'

"Now I'd had a fiery record before. Fights on ship are a breach few captains will allow. This was my third, and one too many. And the mate, prompted by his own opinion of me, got the captain to order me flogged.

"So, like a carcass to be sliced and bid on, I was lead out before the assembled sailors at the next sunrise and bound to the main mast. I thought my wrath went all toward the first mate now. But black turned white in my head, into something that I could bite into, when he flung the whip to Cat and cried, 'Here, Big Sailor, you've done your ship one good turn. Now rub sleep off your face and do it another. I want ten stripes on that one's back deep enough to count easily with a finger dipped in salt.'

"They fell, and I didn't breathe the whole time. Ten lashes is a whipping a man can recover from in a week. Most go down to their knees with the first one, if their rope is slack enough. I didn't fall until they finally cut the ropes from my wrists. Nor was it till I heard a second gold coin rattle down on the deck from the first mate's hand and the words to the crew, 'See how a good sailor gets rich,' that I made a sound. And it was lost in the cheer which sprung from the other men.

"Cat and one other lugged me to the brig. As I fell forward, hands scudding into straw, I heard Cat's voice come, 'Well, brother, that's the way the luck goes.'

"Then the pain made me faint.

"A day later, when I could pull myself up to the window and look out on the back of the ship, we caught the worst storm I'd ever seen, and the slices in my back made it no easier on me. Pegs threatened to pull from their holes, boards to part themselves; one wave washed four men overboard; and while others ran to save them, another came and swept off six more. It had come so suddenly that not a sail had been raised, and now the remaining men were swarming to the

ratlines.

"From my place at the brig's window I saw it start to go and I howled like an animal, tried to pull the bars away. But legs passed my window running, and none stopped. I screamed at them, and I screamed again. The ship's smith had not yet gotten to fix my makeshift repair on the aft mast with another metal band. Nor, with my anger, had I yet even pointed it out to him as I had intended. It didn't hold a quarter of an hour. When it gave there was a snap like thunder. Under the tugging of half furled sails, ropes popped like threads. Men were whipped off like drops of water shaken from a wet hand. The mast raked across the sky above me like a claw, and then fell against the high mizzen, snapping more ropes and scraping men from their perches as you'd scrape ants from a tree.

"The crew's number was halved, and when somehow we crawled from under the sheets of rain, one mast fallen and one more ruined, the broken bodies with still some life numbered eleven. A ship's infirmary holds ten, and the overflow goes to the brig. The choice of who became my mate was between the man most likely to live, figuring that he could take the harder situation more easily than the others, and the man most likely to die, figuring that it would probably make no difference to some one that far gone. The choice was made, the latter choice, and the next morning they carried Cat in and laid him beside me on the straw while I slept. His spine had been crushed at the pelvis and a spar had pierced his side with a hole big enough to put your hand into.

"When he came to, all he did was cry—not with the agonized howls I had given the day before when I watched the mast topple, but with a little sound that escaped from clenched teeth, like a child who doesn't want to show the pain. It didn't stop for hours, and such a soft sound, it burned into my gut and my tongue deeper than any animal wailing would.

"The next dawn stretched copper foil across the window and reddish light fell on the straw, the board floor, and the filthy, crumpled blanket they had laid him in. The crying had stopped and was replaced now by a gasped breath, sharp every few seconds, irregular, loud. I thought he must be unconscious, but when I kneeled to look, his eyes were opened and he stared straight into my face. 'You ...' he said to me with the next gasp. 'It hurts ... You ...'

"'Be still,' I said. 'Here, be still.'

"The next word I thought I heard was water, but there wasn't any in the cell. I should have realized that the ship's supplies had probably gone for the most part overboard. But by now, hungry and thirsty myself, I could see it as nothing less than a stupendous joke when one slice of bread and a single tin cup of water were finally brought and embarrassedly and silently handed in to us about seven that morning.

"Nevertheless, I opened his mouth and tried to pour some of it down his throat. They say a man's mouth and tongue turn black from fever and thirst after a while. It's not true. The color is the deep purple of rotten, shriveled meat. And every taste bud on the dead flesh was tipped with that white stuff that gets in your mouth when your bowels are upset. He couldn't swallow the water. It just dribbled over the side of his mouth that was scabbed with purple crust.

"He blinked his eyes and once more got out, 'You ... you please ...' and then he began to cry again.

"'What is it?' I asked.

"Suddenly he began to struggle and got his hand into the breast of his torn tunic and pulled out a fist. He held it out toward me and said, 'Please ... please ...'

"The fingers opened and I saw three gold coins, two of whose histories suddenly leapt into my mind like stories of living men.

"I moved back as if burned; then I leaned forward again. 'What do you want?' I asked.

"'Please ...' he said, moving his hand toward me. 'Kill ... kill ...' and then he was crying once more. 'It hurts so bad ...'

"I got up. I walked across to the other side of the cell. I came back. Then I broke his neck with my knee and my two hands.

"I took my pay up. Later I ate the bread and drank the rest of the water. Then I went to sleep. They took him away without question. And two days later, when the next food came, I realized, sort of absently, that without all of that first bread and water I would have starved to death. They finally let me out because they needed the muscle, what was left of it. And the only thing I sometimes think about, the only thing I let myself think about, is whether or not I earned my pay. I guess two of them were mine anyway. But sometimes I take them out and look at them, and wonder where he got the third one from."

Urson put his hand in his tunic and brought out three gold coins. "Never been able to spend them, though," he said. He tossed the little pile into the air, and then whipped them back into his fist again, and laughed. "Never was able to spend them on anything."

"I'm sorry," Geo said after a moment.

Urson looked up. "Why? I guess these are my jewels, huh? Maybe everyone has theirs some place. You think it was old Cat, maybe, sometimes when I was in the brig, perhaps, earning that third coin, slicing out that little four-armed monster's tongue? Somehow I doubt it."

"Look, I said I was sorry, Urson."

"I know," Urson said. "I know. I guess I've met a hell full of people in my short, wet life, and it could be any one of them." He sighed. "Though I wish I knew which. But I don't think that's the answer." He lifted his hand to his mouth now and gnawed at his thumb nail. "I hope that kid doesn't get as nervous as I do," he laughed. "He'll have such a hell of a lot of nails to bite."

Then their skulls nearly split apart.

"Hey," said Geo, "that's Snake."

"And he's in trouble too," said Urson. He leaped onto the floor and started up the passageway. Geo came after him.

"Let me go first," Geo said, "I know where he is."

They reached the deck, raced along the side of the cabins, until they reached the door.

"Move," ordered Urson. Then he rammed against the door and it flew open.

Inside, behind her desk, Argo whirled, her hand on her jewel. "What is the ..."

But the moment her concentration turned, Snake, who had been immobile against the opposite wall, suddenly vaulted across the table toward Geo. Geo grabbed the boy to steady him, and immediately one of Snake's hands was at Geo's chest where the jewel hung.

"You fools!" hissed Argo. "Don't you understand? He's a spy for Aptor."

There was a sudden silence.

Then Argo said, "Close the door."

Urson closed it. Snake still held Geo and the jewel.

"Well," she said. "It is too late now."

"What do you mean?" asked Geo.

"That had you not come blundering in, one more of Aptor's spies would have yielded up his secrets and then been reduced to ashes." She breathed deeply. "But he has his jewel now, and I have mine. Well, little thief, there's a stalemate. The forces are balanced now." She looked at Geo. "How do you think he came so easily by the jewel? How do you think he knew when I would be at the shore? Oh, he's a clever one, with all the intelligence of Aptor working behind him. He probably even had you planted without your knowing it to interrupt us at just that time."

"No, he ..." began Urson.

"We were walking by your door," Geo interrupted, "when we heard a noise and thought there might be trouble."

"Your concern may have cost us all our lives."

"If he's a spy, I gather that means he knows how this thing works," said Geo. "Let Urson and I take him ..."

"Take him anywhere you wish!" hissed Argo. "Get out!"

Just then the door opened. "I heard a sound, Priestess Argo, and I thought you might be in danger." It was the first mate.

The Goddess Incarnate breathed deeply. "I am in no danger," she said evenly. "Will you please leave me alone, all of you."

"What's the Snake doing here?" Jordde suddenly asked, seeing Geo still holding the boy.

"I said, leave me!"

Geo turned, away from Jordde, and stepped past him onto the deck, and Urson followed him. Ten steps farther on, he glanced back, and seeing that Jordde had emerged from the cabin and was walking in the other direction, he set Snake down on his feet. "All right, Little One. March!"

In the passage to the forecastle, Urson asked, "Hey, what's going on?"

"Well, for one thing, our little friend here is no spy," said Geo.

"How do you know?" asked Urson.

"Because she doesn't know he can read minds."

"How do you mean?" Urson asked.

"First of all, I was beginning to think something was wrong when I came back from talking to the priestess. You were too, and it lay in the same vein you

were talking about. Why would our task be completely useless unless we accomplished all parts of her mission? Wouldn't there be some value in just returning her sister, the rightful head of Leptar, to her former position? And I'm sure her sister may well have collected some useful information that could be used against Aptor, so that would be some value even if we didn't find the jewel. It doesn't sound too sisterly a thing to me to forsake the young priestess if there is no jewel in it for her. And her tone, the way she refers to the jewel as *hers*. There's an old saying, from before the Great Fire even: Power corrupts, and absolute power corrupts absolutely. And I think she has not a little of the un-goddess-like desire for power first, peace afterwards."

"But that doesn't mean this one isn't an Aptor spy," said Urson.

"Wait a minute. I'm getting there. At first I thought he was too. The idea occurred to me first when I was talking to the priestess and she first mentioned that there were spies from Aptor. The coincidence of his appearance, that he had even managed to steal the jewel in the first place, that he would present it to her the way he did; all this hinted something so strange, that spy was the first thing I thought of, and I'm sure it was the first thing she thought as well. And she especially would think this if she did not know that Snake could read minds and broadcast mentally, because ignorance of his telepathy removes the one other possible explanation of the coincidences. But, Urson, why did he leave the jewel with us before he went to see her?"

"Because he thought she was going to try and take it away from him."

"Exactly. When she told me to send him up to her, I was fairly sure that was the main reason she wanted him. But if he was a spy, and knew how to work the jewel, then why not take it with him, present himself to Argo with the jewel, showing himself as an equal force, and then come calmly back, leaving her in silence and us still on his side, especially since he would be revealing to her something of which she was nine-tenths aware of already, and would watch him no more carefully than she would were it not confirmed."

"All right," said Urson, "why not?"

"Because he was not a spy, and didn't know how to work the jewel. Yes, he had felt its power once. Perhaps he was going to pretend he had it hidden on his person. But he did not want her to get her hands on it for reasons that were strong, but not selfish.

"Here, Snake," said Geo. "You know how to work the jewel now, don't you; but you learned from Argo just now."

The boy nodded.

"Here, then, why don't you take it?" Geo lifted the jewel from his neck and held it out to him.

Snake drew back and shook his head violently.

Urson looked puzzled.

"Snake has seen into human minds, Urson. He's seen things directly which the rest of us only learn from a sort of second hand observation. He knows that the power of this little bead is more dangerous to the mind of the person who wields it than it is to the cities it may destroy."

"Well," said Urson, "as long as she thinks he's a spy, at least we'll have one of them little beads and someone who knows how to use it. I mean if we have to."

"I don't think she thinks he's a spy any more, Urson."

"Huh?"

"I give her credit for being able to reason at least as well as I can. Once she found out he had no jewel on him, she knew that he was as innocent as you and I are. But her only thought was to get it in any way she could. When we came in, just when she was going to put Snake under the jewel's control, guilt made her leap backwards to her first and seemingly logical accusation for our benefit. Evil likes to cloak itself as good."

They stepped down into the forecastle. By now a handful of sailors had come into the room, mostly drunk and snoring on berths around the walls. One had wrapped himself completely up in a blanket in the middle berth of the tier that Urson had chosen for the three. "Well," said Urson to Snake, "it looks like you'll have to move."

Snake scrambled to the top bunk.

"Now look, that one was mine."

Snake motioned him up.

"Huh? Two of us in one of those?" demanded Urson. "Look, if you want someone to keep warm against, go down and sleep with Geo there. It's more room and you won't get squashed against the wall. I'm a thrasher when I sleep."

Snake didn't move.

"Maybe you better do what he says," Geo said. "I have an idea that ..."

"You've got another idea now?" asked Urson, "Oh, damn, I'm too tired to argue." He vaulted up to the top bunk. "Now move over and be very small." He stretched out, and Snake's slight body was completely hidden. "Hey, get your elbows out of there," Geo heard Urson mutter before there was only a gentle thundering of his snore.

Silver mist suffused the deck of the ship and wet lines glowed a phosphorescent silver; the sky was pale as ice; pricks of stars dotted over the whole bowl. The sea, once green, seemed bleached to blowing clouds of white powder. The door of a cabin opened and white veils flung forward from the form of Argo who emerged like silver from the bone-colored door. The whole movement of the scene made it look like a picture imagination fastens in the slow ripplings of gauze under breeze. One dark spot was at her throat, pulsing darkly, like a heart, like a black flame. She walked to the railing, peered over. In the white washing a skeletal hand appeared. It raised on a beckoning arm, then fell forward in the water. Another arm raised now, a few feet away, beckoning, gesturing. Then three at once; then two more.

A voice as pale as the vision spoke "I am coming. We sail in a hour. The mate has been ordered to put the ship out before dawn. You must tell me now, creatures of the water."

Two glowing arms raised up, and then an almost featureless face. Chest high in the water, it listed backwards and sank again.

"Are you of Aptor or Leptar?" spoke the apparitional figure of Argo again in the thinned voice. "Are your allegiances to Argo or Hama? I have followed thus far. You must tell me before I follow farther."

There was a whirling of sound which seemed to be the wind attempting to say, "The sea ... the sea ... the sea ..."

But Argo did not hear, for she turned away and walked from the rail, back to her cabin.

Now the scene moved, turned toward the door of the forecastle. It opened, moved through the hall, the walls, more like polished steel than weathered wood, and went on. In the forecastle, the yellow oil lamp seemed a white flaring of magnesium.

The movement stopped in front of a tier of three berths; on the bottom one lay a young man with a starved, pallid face. His mop of hair was bleached white. On his chest was a pulsing darkness, a black flame, a dark heart, shimmering with the indistinctness of absolute shadow. On the top bunk a great form like a bloated corpse lay. One huge arm hung over the bunk, flabbed, puffy, without muscle.

In the center berth was an anonymous bundle of blankets completely covering the figure inside. On this the scene fixed, drew closer ... and the paleness suddenly faded before darkness, into shadow, into nothing.

Geo sat up and knuckled his eyes.

The dark forecastle was relieved by the yellow glow of the lamp. The gaunt mate stood across the room. "Hey, you," he was saying to a man in one of the bunks, "up and out. We're sailing."

The figure roused itself from the tangle of bedding.

The mate moved to another. "Up, you dog face. Up, you fish fodder. We're sailing." Turning around, he saw Geo watching him. "And what's wrong with you?" he demanded. "We're sailing, didn't you hear? Naw, you go back to sleep. Your turn will come, but we need experienced ones now." He grinned briefly, and then went on to one more. "Eh, you stink like an old wine cask. Raise yourself out of your fumes. We're sailing!"

CHAPTER IV

"That dream," Geo said to Urson a moment after the mate left. Urson looked down from his bunk.

"You had it too?"

Both turned to Snake.

"I guess that was your doing, eh?" Urson said.

Snake scrambled down from the upper bunk.

"Did you go wandering around the deck last night and do some spying?" Geo asked.

By now most of the other sailors had risen, and one suddenly stepped between Urson and Geo. ""Scuse me, mate," he said and shook the figure in the second berth. "Hey, Whitey, come on. You can't be that soused from last night.

Get up or you'll miss mess." The young sailor shook the figure again. "Hey, Whitey." The figure in the blankets was unresponsive. The sailor gave him one more good shake, and as he rolled over, the blanket fell away from the blond head. The eyes were wide and dull, the mouth half open. "Hey, Whitey," the black sailor said again, and then he stepped back, slowly.

Mist enveloped the ship three hours out from port. Urson was called for duty right after breakfast, but no one bothered either Snake or Geo that first morning. Snake would slip off somewhere and Geo would be left to wander the ship alone. He was walking beneath the dories when the heavy slap of bare feet on the wet deck materialized in Urson. "Hey," greeted his friend. "What are you doing under here?"

"Nothing much," Geo said.

Urson was carrying a coil of rope about his shoulder. Now he slung it down into his hand and leaned against the support shaft and looked out toward the fog. "It's a bad beginning this trip has had," he said. "What few sailors I've talked to don't like it at all."

"Urson," said Geo, "have you any idea what actually happened this morning?"

"Maybe I have and maybe I haven't," Urson said. "What ones have you?"

"Do you remember the dream?" he asked.

Urson scrunched his shoulders as if suddenly cold. "I do," he said.

"It was like we were seeing through somebody else's eyes, almost."

"Our little four-armed friend sees things in a strange way if that's the case."

"Urson, that wasn't Snake's eyes we saw through. I asked him, just before he went off exploring the ship. It was somebody else. All he did was get the pictures and relay them into our minds. And what was the last thing you saw?"

"As a matter of fact," Urson said, turning, "I think he was looking at poor Whitey's bunk."

"And who was supposed to be sleeping in poor Whitey's bunk?"

"Snake?"

"Exactly. Do you think perhaps White was killed?"

"Could be, I guess. But how, and why, and who?"

"Somebody who wanted Snake killed. Maybe the same person who cut his

tongue out a year and a half ago."

"I thought we decided that we didn't know who that was."

"A man you know, Urson," Geo said. "What man on this ship have you sailed with before?"

"Don't you think I've been looking?" Urson asked. "There's not a familiar face on deck, other than maybe one I've seen in a dockside bar, but never one whose name I've known."

"Think, Urson, who on this ship you've sailed with before," Geo asked again, more intently.

Suddenly Urson turned. "You mean the mate?"

"That's just who I mean," said Geo.

"And you think he tried to kill Snake. Why didn't Snake tell us?"

"Because he thought if we knew, we'd get in trouble with it. And he may be right."

"How come?" asked Urson.

"Look, we know something is fishy about Argo. The more I think about it, the less I can put my hands on it. But if something is fishy about the mate too, then perhaps he's in cahoots with her. What about when he came into Argo's cabin last night when we were there?"

"Maybe he was just doing what we said we were; walking by when he heard a noise. If it was his eyes we were seeing through, then he sees things awfully funny, then."

"Maybe he's a strange one too, like Snake who 'hears' things funny. Not all strangeness shows," Geo reminded him.

"You could be right," said Urson. "You could be right." He stood up from where he had leaned against a lifeboat support. "Well, you think some more friend, and I'll listen. I'll see you later." He hauled up his rope again and started off in the mist.

Geo decided to search for Snake. A ladder led to the upper deck, and climbing it, he saw across the deck a tall, fog-shrouded figure. He paused, and then started forward. "Hello," he said.

The captain turned from the railing and looked at him.

"Good morning sir," Geo said. "I thought you might be the mate."

The captain was silent for a while, and then said, "Good morning. What do

you want?"

"I didn't mean to disturb you if you were ..."

"No disturbance," said the captain.

"How long will it take us to get to Aptor?"

"Another three weeks. Shorter if this wind keeps up."

"I see," said Geo. "Have you any idea of the geography of Aptor?"

"The mate is the only one on board that has ever set foot on Aptor and come off it alive. Except Priestess Argo."

"The mate, sir? When?"

"On a previous voyage he was wrecked there. He made a raft and drifted into the open sea where he had the good fortune to be picked up by a ship."

"Then he will lead whatever party goes to the place?"

"Not him," said the captain. "He's sworn never to set foot on the place again. Don't even ask him to talk about it. Imagine what sort of a place it must be if probable death on the open sea is better than struggling on its land. No, he'll pilot us through the bay to the river's estuary, but other than that, he will have nothing to do with the place.

"Two other men we had on board who'd been there and returned. They went with the Priestess Argo in a boat of thirteen. Ten were dismembered and the pieces of their bodies were thrown in the water. Two survived to row the Priestess back to the boat. One was the sailor who died in the forecastle this morning. Not half an hour ago, I received news that the other one went overboard from the rigging and was lost in the sea. This is not a good trip. Men are not to be lost like coins in a game. Life is too valuable."

"I see," said Geo. "Thank you for your information and time, sir."

"You are welcome," the captain said. Then he turned away.

Geo descended the ladder again and walked slowly forward. Something touched him on the shoulder and he whirled.

"Snake, God damn it, don't do that!"

The boy looked embarrassed.

"I didn't mean to yell," Geo said, putting his arm around the boy's shoulder. "Come on, though. What did you find? I'll trade you what I know for what you do."

You ... sleep, came from Snake.

"I'm sorry, friend," laughed Geo. "But I couldn't take a nap now if you paid me. Now tell me, whose eyes were we seeing through last night? The captain's?"

Snake shook his head.

"The mate's?"

Snake nodded.

"I thought so. Now, did he want to kill ... wait a minute," said Geo. "Can the mate read minds, too? Is that why you're keeping things from us?"

Snake shrugged.

"Come on now," Geo said. "Do a little yelling and explain."

Don't ... know, Snake thought out loud. *Can ... see ... what ... he ... sees ... hear ... what ... he ... hears. But ... no ... hear ... thoughts ...*

"I see. Look, take a chance that he can't read minds and tell me, did he kill the man in the bed you should have been in."

Snake paused for a minute. Then nodded.

"Do you think he was trying to kill you?"

Snake nodded again.

"Did you know that the man killed this morning in your place was one of the two men who came back from Aptor with the Priestess?"

Snake looked surprised.

"And that the other one drowned this morning, fell overboard, and was lost?"

Snake nearly jumped.

"What is it?"

Look ... for ... him ... all ... morning. He ... not ... dead ... hear ... thoughts ... dim ... low.

"Who's not dead?" Geo asked. "Which one?"

Second ... man.

"Did you find him?" Geo asked.

Can't ... find, Snake said. *But ... alive ... I ... know.*

"One other question," Geo raised the jewel from where it hung against his chest. "How do you work this silly thing?"

Think ... through ... it, said Snake.

Geo frowned. "What do you mean? Can you tell me how it works?"

You ... have ... no ... words, Snake said. *Radio ... electricity ... diode ...*

"Radio, electricity, diode?" repeated Geo, the sounds coming unfamiliarly to his tongue. "What are they?"

Snake shrugged.

Geo got a chance to report his findings to Urson that evening and the big man was puzzled.

"Can you add anything?" Geo asked.

"All I've had a chance to do is work," grumbled Urson. They were standing by the edge of the rail beyond which the mist steeped thickly, making sky and water indistinguishable and grave. "Hey, Four-arms," Urson suddenly asked. "What are you looking at?"

Snake stared at the water but said nothing.

"Maybe he's listening to something," suggested Geo.

"You'd think there were better things to eavesdrop on than fishes," said Urson. "I guess Argo's given special orders that you two get no work. Some people! Let's go eat." As they started toward the convergence of sailors at the entrance of the mess hall, Urson said, "Oh, guess what?" He turned to Geo and picked up the jewel from the boy's chest. "All you people are going around with such finery, I took my coins to the smithy and had him put chains on them. Now I'll strut with the best of you." He laughed, and then went through the narrow way, crowding with the other sailors into the wide hall.

For two weeks, nights without dreams left them early, and the boat rolled from beneath the fog. Dawn was gray, but clear; then, by one breakfast time the ragged slip of Aptor's beach hemmed the horizon.

On the wheel deck the sailors clustered to the rail, and before them rocks struck like broken teeth from the water. Urson, in his new, triple neckchain, joined Snake and Geo at the rail. "Whew," he said. "Getting through them is going to be fun."

Suddenly heads turned. Behind them now, Argo's dark veils, bloated with the breeze, filled about her as she mounted the steps to the wheel deck. The sailors moved away from her. Then, one hand on a stay rope, she stared across the gray water to the dark tongue of land.

From the wheel the captain spoke, "Jordde, disperse the men and take over the wheel."

"Aye, sir," said the mate. "You, you, and you to the tops." He pointed among the men. "You also, and you. Hey, didn't you hear me?"

"Me, sir?" Geo turned around.

"Yes, you, up to the top spar there."

"You can't send him up," Urson called out. "He's never been topside at all before. It's too choppy for any lad's first time up. He doesn't even know ..."

"And who asked you?" demanded the mate.

"Nobody asked me, sir," said Urson, "but—"

"Then you get below before I have you brigged for insubordination and fine you your three gold baubles. Don't you think I recognize dead man's gold?"

"Now look here," Urson roared.

Geo glanced from Argo to the captain. The bewilderment that flooded the face of the Priestess shocked him.

Jordde suddenly seized up a marlin pin, raised it, and shouted at Urson, "Get down below before I break your skull open."

Urson's fists sprang up.

"Calmly, brother bear," Geo began.

"In a bitch's ass," snarled Urson and swung his huge arm forward. Something leaped on Jordde from behind—Snake! The marlin pin veered inches away from Urson's shoulder. The flung fist sunk into the mate's stomach and he reeled forward, passing Urson, with Snake still clawing at his back. He reached the rail, bent double over it, and Snake's legs flipped up. When Jordde rose, he was free of encumbrance.

Geo rushed to the edge and saw Snake's head emerge in the churning water. Behind him, Urson yelled, "Look out!" Jordde's marlin made an inch of splinters in the length of wood against which he had been leaning.

"Not him!" cried Argo. "No, no! Not him!"

But Jordde had seized Geo's shoulder and whirled him back against the rail. Geo saw Urson grab a loose rope behind them and suddenly swing forward, intending to knock Jordde away with his feet. But suddenly Argo moved in the way of his flying body, turned, saw him, and raised her hands to push him aside so that he swung wide of them and landed on the railing a yard from where they

struggled.

Geo's feet slipped on the wet boards, and he felt his body suddenly hurled backwards onto the air. Then his back slapped water. As he broke surface, Urson, still on the rail called to him, "Hang on, friend Geo, I'm coming!" Urson's arms swung back, and then forward as he dove into the sea.

Now Geo could see only Argo and Jordde at the rail. But they were struggling. Urson and Snake were near him in the water. The last thing he saw was Jordde suddenly wrest something from Argo's neck and then fling it out into the sea. The Priestess' hands reached for the flying jewel, followed its arc as she screamed toward the water.

Then hands were at his body. Geo turned in the water as Snake disappeared from beside him and Urson suddenly cried out. Hands were pulling him down.

Roughness of sand beneath one of his sides and the flare of sun on the other. His eyes were hot and his lids were orange over them. Then there was a breeze. He opened his eyes, and shut them quick, because of the light. Then he turned over, thought about pillows and stiff new sheets. Reaching out, he grabbed sand.

He opened his eyes and pushed himself up from the beach with both hands spread in warm, soft crumblings. Over there were rocks, and thick vegetation behind them. He swayed to his knees, the sand grating under his kneecaps. He looked at his arm in the sun, flecked with grains. Then he touched his chest.

His hand came to one bead, moved on, and came to another! He looked down. Both the chain with the platinum claw and the thong with the wire cage hung around his neck. Bewildered, he heaved to his feet, and immediately sat down again as the beach went red with the wash of blood behind his eyeballs. He got up again, slowly.

Carefully Geo started down the beach, looking toward the land. When he turned to look at the water, he stopped.

At the horizon, beyond the rocks, was a boat with lowered sails. So they hadn't left yet. He swung his eyes back to the beach: fifty feet away was another figure lying in the sun.

He ran forward, now, the sand splashing around his feet, sinking under his toes, so that it was like the slow motion running of dreams. Ten feet from the figure he stopped.

It was a young black, very dark, skin the color of richly humused soil. The long skull was shaved. Like Geo, he was almost naked. There was a clot of seaweed at his wrist, and the soles of his feet and one up-turned palm were grayish and shriveled.

Geo frowned and stood for a full minute. He looked up and down the beach once more. There was no one else. Just then the man's arm shifted across the sand.

Immediately Geo fell to his knees beside the figure, rolled him over and lifted his head. The eyes opened, squinted in the light, and the man said, "Who are you?"

"My name is Geo."

The man sat up, and caught himself from falling forward by jamming his hands into the sand. He shook his head, and then looked up at Geo again. "Yes," he said. "I remember you. What happened? Did we founder? Did the ship go down?"

"Remember me from where?" Geo asked.

"From the ship. You were on the ship, weren't you?"

"I was on the ship," Geo said. "And I got thrown overboard by that damned first mate in a fight. But nothing happened to the ship. It's still out there, you can see it." Suddenly Geo stopped. Then he said, "You're the guy who discovered Whitey's body that morning!"

"That's right." He shook his head again. "My name is Iimmi." Now he looked out to the horizon. "I see them," he said. "There's the ship. But where are we?"

"On the beach of Aptor," Geo told him.

Iimmi screwed his face up into a mask of dark horror. "No," he said softly. "We couldn't be. We were days away from her...."

"How did you fall in?"

"It was blowing up a little," Iimmi explained. "I was in the rig when suddenly something struck me from behind and I went toppling. In all the mist, they didn't see me, and the current was too strong for me, and ..." He looked around.

"You've been on this beach once before, haven't you?" Geo asked.

"Once," said Iimmi. "Yes, once."

"Do you realize how long you've been in the water?" Geo asked.

Iimmi looked up.

"Over two weeks," Geo said. "Come on, see if you can walk. I've got a lot of things to explain, if I can, and we've got some hunting to do."

Iimmi steadied himself once more, and together they started up the beach.

"What are you looking for?" Iimmi asked.

"Friends," Geo said.

Two hundred feet up, the rocks and torpid vegetation came down to the water, cutting off the beach. Scrambling over boulders and through vines, they emerged on a rock embankment that dropped fifteen feet into the wide estuary of a ribbon of water that wound back into the jungle. Twenty feet further, the bank dropped to the river's surface, and they both fell flat at the edge of a wet table of rock and sucked in cool liquid, watching blue stones and the white and red pebbles shivering six feet below clear ripples.

There was a sound. Both sprang back from the water, turned, and crouched on the rock.

"Hey," Urson said, through leaves. "I was wondering when I'd find you."

Light through branches lay on the gold coins hung against his hairy chest. "Have you seen Snake?"

"I was hoping he was with you," said Geo. "Oh, Urson, this is Iimmi, the other sailor who died two weeks ago."

Both Iimmi and Urson looked puzzled. "Have a drink of water," Geo said, "and I'll explain as best I can."

"Don't mind if I do," said Urson.

While the bear man lay down to drink, Geo began the story of Aptor and Leptar for Iimmi. When he finished, Iimmi asked, "You mean those fish things in the water carried us here? Whose side are they on?"

"Apparently Argo isn't sure either," Geo said. "Perhaps they're neutral."

"And the mate?" asked Iimmi. "You think he pushed me overboard after he killed Whitey?"

"I thought you said he was trying to kill Snake," said Urson, who had finished drinking.

"He was," explained Geo. "He wanted to get rid of all three. Probably Snake first, and then Whitey and Iimmi. He wasn't counting on our fishy

friends, though. I think it was just luck that it was Whitey he got rather than Snake. If he can't read minds, which I'm pretty sure he can't, he probably overheard you assigning the bunks for us to sleep in, Urson. When he found out he had killed Whitey instead, it just urged him to get Iimmi out of the way more quickly."

"I could easily have been pushed," Iimmi agreed. "But I still don't see why."

"If there is a spy from Aptor on the ship, then Jordde is it," said Geo. "The captain told me he had been to Aptor once before. It must have been then that he was enjoined into their forces. Iimmi, both you and Whitey had also been on Aptor's shore, if only for a few hours. There must be something that Jordde learned from the island that he was afraid you might learn, something you might see. Something dangerous, dangerous for Aptor, something you might see just from being on the beach. Probably it was something you wouldn't even recognize, something you'd maybe not see the significance of until much later. But probably something very obvious."

Now Urson spoke. "What did happen when you were on Aptor? How were those ten men killed?"

Though the sun was warm, Iimmi shivered. He waited for a moment, and then he began. "We took a skiff out from the ship and managed to get through the rocks somehow. It was evening when we started and the moon, I remember, had risen just above the horizon, though the sky was still deep blue. 'This light of the full moon is propitious to the White Goddess Argo,' she said from her place at the bow of the boat. By the time we landed, the sky was black behind her, and the beach was all silvered by the light, up and down. Whitey and I were left to guard the skiff at the water's edge, and sitting on the gunwales, shoulders hunched in the slight chill, we watched the others go up the beach, five and five, with Argo behind them.

"Suddenly there was a scream, and the first man fell. They came from the air like vultures. The moon was overhead by now, and a cloud of them darkened the white disk with their wings. They scurried after the fleeing men, over the sand. All we could really make out was a dark battling against the silver. There were swords raised in the white light, screams, and howls that nearly sent us back into the ocean. But Argo and a handful of those men left began to run

toward the boat. They followed them down to the edge of the water, loping behind them, half flying, half running, hacking one after another down with swords. I saw one man fall forward and his head roll from his body while blood squirted ten feet along the sand, crimson under the moon. One actually caught at her veils, but she screamed and slipped from it into the water now, and climbed back into the boat, panting. You would think a woman would collapse, but no. She stood in the bow while we rowed our arms off. They would not come over the water, apparently, and somehow we managed to get the skiff back to the ship without foundering against the rocks."

"Our aquatic friends may have had something to do with that," said Geo. "Iimmi, you say her veils were pulled off. Tell me, do you remember if she were wearing any jewelry or not?"

"She certainly wasn't," Iimmi said. "She stood there in only her dark robe, her throat as bare as ivory."

"She wasn't going to bring the jewel to Aptor where those monsters could get their hands on it again," said Urson. "But Geo, if Jordde's the spy, why did he throw the jewel in the sea?"

"Whatever reason he had," said Geo, "our friends have given it to me now."

"You said Argo didn't know whose side these sea creatures were on, Leptar's or Aptor's," said Iimmi. "But perhaps Jordde knows, and that's why he threw it to them." He paused for a moment. "Friend, I think you have made an error; you tell me you are a poet, and it is a poet's error. The hinge in your argument that Snake is no spy is that Argo must have dubious motives to send you on such an impossible task, without protection, saying that it would be meaningful only if all its goals were accomplished. You reasoned, how could an honest woman place the life of her sister below the value of a jewel ..."

"Not just her sister," interrupted Geo, "but *the* Goddess Argo Incarnate."

"Be patient," said Iimmi. "Only if she wished to make permanent her temporary condition, you thought, could she set such an impossible task. There may be some truth in what you say. But she herself would not bring the jewel to the shores of Aptor, though it was for her own protection. Thanks to you, all three jewels are now in Aptor, and if any part of her story is true, Leptar is now in more danger than it has been in five hundred years. You have the jewels, two of them, and you cannot use them. Where is your friend Snake who can? Both

Snake and Jordde could easily be spies and the enmity between them feigned, so that while you focused on one, you could be misled by the other. You say he can move into men's minds? Perhaps he clouded yours."

They sat silent for the lapsing of a minute.

"Argo may be torn by many things," continued Iimmi. "But you, in watching some, may have been deluded by others."

Light from the river quivered on the undersides of leaves. Urson spoke now. "I think his story is better than yours, Geo."

"Then what shall we do now?" asked Geo, softly.

"Do what the Goddess requests as best we can," said Iimmi. "Find the Temple of Hama, secure the stone, rescue the young Goddess, and die before we let the jewels fall into hands of Aptor."

"From the way you describe this place," muttered Urson, "that may not be far off."

"Still," mused Geo, "there are things that don't mesh. Like why were you saved too, Iimmi? Why were we brought here at all? And why did Jordde want to kill you and the other sailor?"

"Perhaps," said Iimmi, "the god Hama has a strange sense of humor and we shall be allowed to carry the jewels up to the temple door before we are slaughtered, dropping them at his feet." He smiled. "Then again, perhaps your theory is the correct one, Geo, and I am the spy, sent to sway your reason."

Urson and Geo glanced at each other.

"There are an infinite number of theories for every set of facts," said the Negro. "Rule number one: assume the simplest; that includes all the known conditions to be true until more conditions arise for which your theory no longer holds. Rule number two: then, and not until, change it."

"Then we go on into the jungle," Geo said.

"I guess we do," said Urson.

"Since we've got this job, we've got to trust ourselves and do it right. Let's see if we can put one more of those things around your neck before we're through." He pointed to the two jewels hanging at Geo's chest. Then he laughed. "One more and you'll be all the way up to me," and he rattled his own triple necklace.

CHAPTER V

Light lowered in the sky as they walked beside the river, keeping close to the rocky edge and brushing away vines that strung into the water from hanging limbs. Urson broke down a branch as thick as his wrist and as tall as himself and smote the water with it, playfully. "That should put a welt on anyone's head who wants to bother us." He raised the stick from the water and drops ran along the bark, moving sparks at the ends of dark lines.

"We'll have to turn into the woods for food soon," said Iimmi, "unless we wait for animals who come down to drink."

Urson tugged at another branch, and it twisted loose from fibrous white pulp. "Here," he handed it to Iimmi. "I'll have one for you in a moment, Geo."

"And maybe we could explore a little, before it gets dark," Geo suggested.

Urson handed him the third staff. "There's not much here I want to see," he muttered.

"Well, we can't sleep on the bank. We've got to find a place hidden in the trees."

"Can you see what that is through there?" Iimmi asked.

"Where?" asked Geo. "Huh...?" Through the thick growth was a rising shadow. "A rock or a cliff?" he suggested.

"Maybe," mused Urson, "but it's awfully regular."

Geo started off into the underbrush, and the others followed. Their goal was further and larger than it had looked from the river. Once they passed across a section of ten or twelve stones, rectangular and side by side, like paving. Small trees had pushed up between some of them, but for thirty feet, before the edge sank beneath the soft jungle floor it was easier going. Suddenly the growth became thin again and they were at the edge of a relatively clear area. Before them loomed the ruins of a great building. Six girders cleared the highest wall, implying an original height of eighteen or twenty stories. One wall was completely sheared away and fragments of it chunked the ground. The revealed dark caves of broken rooms and cubicles suggested an injured granite hive. They approached slowly.

To one side a great metal cylinder lay askew a heap of rubbish. A flat blade of metal transversed it, one side twisting into the ground where skeletal girders shown beneath ripped plating. A row of windows like dark eyes lined the body,

and a door gaped in an idiotic oval halfway along its length.

Fascinated, they turned toward the injured wreck. As they neared, a sound came from inside the door. They stopped, and their staves leapt a protective inch from the ground. In the shadow of the door, ten feet from the ground, another shadow moved, resolving itself into an animal head, long, muzzled, gray. Then they could see the forelegs. It looked like an immense dog, and it was carrying a smaller animal, obviously dead, in its mouth. It saw them, watched them, was still.

"Dinner," Urson said softly. "Come on." They moved forward again. Then they stopped.

Suddenly the beast sprang from the doorway. Shadow and distance had made them completely underestimate its size. Along the sprung arc flowed a canine body nearly five feet long. Urson struck up at it and knocked it from its flight with his stick. As it fell, Iimmi and Geo were upon it with theirs, clubbing its chest and head. For six blows it staggered and could not gain its feet. Then, as it threatened to heave to standing, Urson rushed forward and brought his stave straight down on the chest: bones snapped and tore through the brown pelt, only to have their blue sheen covered a moment later by a well of blood. It howled, kicked its hind feet at the stake with which Urson held it to the ground, and then stretched out its limbs and quivered. The front legs stretched, and stretched, while the torso seemed to pull in on itself, shrinking in the death agonies. The long mouth, which had dropped its prey, gaped open as the head flopped from side to side, the pink tongue lolling, shrinking.

"My God," said Geo.

The sharp muzzle blunted now and the claws in the padded paw stretched, opened into human fingers and a thumb. The hairlessness of the under-belly had spread to the entire carcass. Hind legs lengthened, joints reversed themselves, and bare knees bent as human feet dragged themselves through fragments of brown leaves over the ground and a human thigh gave a final contraction, stilled, and then one leg fell out straight again. A shaggy, black-haired man lay still on the ground, his chest caved and bloody. In one last throw, he flung his hands up to grasp the stake and pull it from his chest, but too weak, they slipped down as his lips curled back from his mouth revealing a row of perfectly white, blunt teeth.

Urson stepped back, and then back again. The stave fell, pulled loose with a sucking explosion from the ruined mess of lung. The bear man had raised his hand to his own chest and seized his triple, gold token. “In the name of the Goddess,” he finally said.

Iimmi walked forward now, picked up the carcass of the smaller animal that had been dropped, and turned away. “Well,” he said, “I guess dinner isn’t going to be as big as we thought.”

“I guess not,” Geo said.

They walked back to the ruined building, away from the corpse.

“Hey, Urson,” Geo said at last to the big man who was still holding his coins, “Snap out of it. What’s the matter?”

“The only man I’ve ever seen whose body was that broken in that way,” he said slowly, “was one whose side struck into by a ship’s spar.”

They decided to settle that evening at the corner of one of the building’s ruined walls. They produced fire with a rock against a section of slightly rusted girder. And after much sawing on a jagged metal blade protruding from a pile of rubble, they managed to quarter the animal and rip most of the pelt from its red body. With thin branches to hold the meat, they did a passable job of roasting. Although partially burned, partially raw, and without seasoning, they ate it, and their hunger ceased. As they sat huddled by the wall, ripping red juicy fibers from the last bones with their teeth, night swelled through the jungle, imprisoning them in the shell of orange flicking from their fire.

“Shall we leave it going?” asked Urson.

“Fire keeps animals away,” Iimmi said.

On leaves piled together now they stretched out by the wall of the broken building. There was quiet—an insect hum, no un-namable chitterings, except for the comforting rush of the river’s water.

Geo was first to awake, his eyes filled with silver. The entire clearing had been flooded by white light from the huge disk of the moon that sat on the rim of the trees. Iimmi and Urson beside him looked uncomfortably corpse-like, and he was about to reach over and touch Iimmi’s outstretched arm when there was a noise behind him, like beaten cloth. He jerked his head around, and was staring at the gray wall by which they had camped. He looked up at the

spreading plane that tore off raggedly against the night. Fatigue had washed into something unpleasant and hard in his belly that had little to do with tiredness. He stretched his arm in the leaves once more and put his cheek down on the cool flesh of his shoulder.

The beating sound came again and continued for a few seconds. He rolled his face up and stared at the sky. Something crossed on the moon. It seemed to expand a moment, spread its wings, and draw them in again.

He reached out, his arm over the leaves like thunder, and grabbed Iimmi's black shoulder. Iimmi grunted, started, then rolled over on his back, and opened his eyes. Geo saw the black chest drop with expelled breath, the only recognition given. A few seconds later the chest rose again. Iimmi turned his face to Geo and raised his finger to his lips. Then he turned his face back up to the night. Three more times the flapping sounded behind them, behind the wall, Geo realized. Once he glanced down again and saw that Iimmi had raised his arm and put it over his eyes.

They passed years that way. Then a flock suddenly leapt from the wall. Some of them fell twenty feet before their wings filled with air and they rose again. They circled wider and before they returned, another flock dropped off into the night.

As they fell this time, Geo suddenly grabbed Iimmi's arm and pulled it down from his eyes. The figures dropped through the dark like kites, sixty feet above them, forty feet, thirty; then there was a thin, piercing shriek. Iimmi was up on his feet in a second, and Geo beside him, their staffs in hand.

"Here it comes," breathed Iimmi. He kicked at Urson, but the big man was already on his knees, and then feet. The wings beat insistently and darkly before them as they stood against the wall. The figures flew toward them and at the terrifying distance of five feet, reversed. "I don't think they can get in at the wall," said Iimmi.

"I hope the hell they can't," Urson said.

The figures dropped to the ground, black wings crumpling to their bodies in the moonlight. In the growing hoard of shadow in front of them, light snagged on a metal blade.

Then two of the creatures detached from the others and hurled themselves forward, swords arcing suddenly above their heads.

They swung their staffs as hard as they could, catching both beasts on the chest. They fell backwards in a sudden expansion of rubbery wings, as though they had stumbled into billowing dark canvas.

Three more now leapt over the fallen ones, shrieking. As they came, Urson looked up and jammed his staff into the belly of a fourth monster who was about to fall on them from above. One got past Iimmi's whistling staff and Geo had to stop swinging and grab a furry arm. He pulled it to the side, overbalancing the huge, sailed creature. It dropped its sword as it lay for a moment, struggling on its back. Geo grabbed the blade and brought it straight from the ground up into the gut of another of the creatures who spread open its wings and staggered back. He wrested the blade free, and then turned it down into the body of the fallen one; it made a thick sound like a crushed sponge. As the blade came out again and he hacked into a shadow on his left, a voice suddenly sounded, but inside his head.

The ... jewels ...

"Snake!" bawled Geo. "Where the hell are you?" He was still holding his staff, and now he flung it forward, spear-like, into the face of an advancing beast. Struck, it opened up like a black parachute, knocking away three of its companions, before it fell.

In the view, cleared for an instant, Geo saw a slight, spidery form, dart from the jungle edge into the clearing. With his free hand Geo ripped the jewels from his neck and flung the confused handful of thong and chain over the heads of the shrieking beasts. The beads made a double eye in the light at the top of their arc before they fell on the leaves beyond. Snake picked them up and held them above his head.

Fire leapt from the boy's hands in a double bolt that converged in the center of the dark bodies. A red flair silhouetted the jagged edge of a wing. A wing flamed, waved flame, and the burning beast tried to take air before it fell, splashing fire about it. Orange light caught sharp on brown faces chiseled with shadow, caught in the terrified red bead of an eye or along double fangs behind dark lips.

Burning wings withered on the ground; dead leaves had sparked now, and whips of light ran on the clearing floor. The beasts retreated and the three men stood against the wall, panting.

"Watch out!" Iimmi suddenly called.

Snake looked up as the great wings tented over him, hiding him momentarily. Red flared beneath them, and suddenly the beasts fell away, their sails sweeping over the dead leaves, moved by wind or life, Geo couldn't tell. Dark flappings rose on the moon, grew further away, and were gone.

Away from the wall, they saw the fire had blown up against the wall and was dying. They ran quickly toward the edge of the forest. "Snake," said Geo when they stopped. "This is Iimmi, this is Snake. We told you about him."

Iimmi extended his hand. "Glad to meet you."

"Look," said Geo, "he can read your mind, so if you still think he's a spy ..."

Iimmi grinned. "Remember the general rule? If he is a spy, it's going to get much too complicated trying to figure why he saved us like that."

Urson scratched his head. "If it's a choice between Snake and nothing, we better take Snake. Hey, Four Arms, I owe you a thrashing." He paused, then laughed. "I hope some day I get a chance to give it to you."

"Where have you been, anyway?" Geo asked. He put his hand on the boy's shoulder. "You're wet."

"Our water friends again?" suggested Urson.

"Probably," said Geo.

Snake now held one hand toward Geo.

"What's that? Oh, you don't want to keep them?"

Snake shook his head.

"All right," said Geo. He took one jewel and put it around his neck.

Geo took the wrought chain with the platinum claw from his neck and hung it around Iimmi's. The white eye shown on his dark chest in the moonlight. Now Snake beckoned them to follow him back across the clearing. They came, stopping to pick up swords from the shriveled darknesses on the ground about the clearing. As they passed around the edge of the broken building, Geo looked for the corpse they had left there, but it was gone.

"Where are we going?" asked Urson.

Snake only motioned them onward. They neared the broken cylinder and Snake scrambled up the rubble under the dark hole through which the man-wolf had leaped earlier that evening.

At the door, Snake turned and lifted the jewel from Geo's neck, and held it aloft. The jewel glowed now, with a blue-green light that seeped into the corners and crevices of the ruined entrance. Shreds of cloth hung at the windows, most of which were broken. Twigs and rubbish littered the metal floor. They walked between double seats toward a door at the far end. Effaced signs still hung on the walls.

N .. SM .. K .. G

The door at the end was ajar, and Snake opened it all the way. Something scuttered through a cracked window. The jewel's light showed two seats broken from their fixtures. Vines covered the front window in which only a few splinters of glass hung on the rim. Draped in rotten fabric, a few metal rings about wrists and ankles, two skeletons with silver helmets had fallen from the seats. Snake pointed to a row of smashed glass disks in front of the broken seats.

Radio ... they heard in their minds.

Now he reached down into the mess on the floor and dislodged a chunk of rusted metal. *Gun*, he said, showing it to Geo.

The three men examined it. "What's it good for?" asked Urson.

Snake shrugged.

"Are there any electricities, or diodes around?" asked Geo, remembering the words from before.

Snake shrugged again.

"Why did you want to show us all this?" Geo asked.

The boy only turned and started back toward the door. When they were standing in the oval entrance, about to climb down, Iimmi pointed to the ruins of the building ahead of them. "Do you know what that building was called?"

Barracks, Snake said.

"I know that word," said Geo.

"So do I," said Iimmi. "It means a place where they used to keep soldiers all together. It's from one of the old languages."

"Where to now?" Urson asked Snake.

The boy climbed back down into the clearing and they followed him into the denser wood where only pearls of light scattered through the trees. They emerged at a broad ribbon of silver, the river, broken by rocks.

"We were right the first time," Geo said. "We should have stayed here."

The sound of rippling, sloshing, the full whisper of leaves and foliage along the edges of the forest—these accompanied them as they lay down on the dried moss behind the larger rocks. And with the heaviness of release on them, they dropped, like stones down a well, the bright pool of sleep.

The bright pool of silver grew and spread and wrinkled into the familiar shapes of mast, the rail of the deck, and the whiteness of the sea beyond the ship. The scene moved down the deck, until another gaunt figure approached from the other direction. The features, though strangely distorted by whiteness and pulled to grotesquerie, were recognizable as those of the captain as he drew near.

"Oh, mate," said the captain.

Silence, while the mate gave an answer they couldn't hear.

"Yes," answered the captain. "I wonder what she wants, too." His voice was hollow, etiolated like a flower grown in darkness. The captain turned and knocked on Argo's cabin door. It opened, and they stepped in.

The hand that opened the door for them was thin as winter twigs. The walls of the room seemed draped in spider webs and hangings insubstantial as layered dust. The great desk seemed spindly, grotesque, and the papers on top of it were tissue thin, threatening to scutter and crumble with a breath. The chandelier above gave more languishing white smoke than light, and the arms, branches, and complexed array of oil cups looked like a convocation of spiders.

Argo spoke in a pale white voice that sounded like the whisper of thin fingers tearing webs.

"So," she said. "We will stay at least another seven days."

"But why?" asked the captain.

"I have received a sign from the sea."

"I do not wish to question your authority, Priestess," began the captain.

"Then do not," interrupted Argo.

"My mate has raised the objection that ..."

"Your mate has raised his hand to me once," stated the Priestess. "It is only in my benevolence ..." Here she paused, and her voice became more unsure, "... that I do not destroy him where he stands." Beneath, her veil, a face could be made out that might have belonged to a dried skull.

"But," began the captain.

"We wait here by the island of Aptor another seven days," commanded Argo. She looked away from the captain now, in a direction that must have been straight into the eyes of the mate. From behind the veil, hate welled like living liquid from the seemingly empty sockets. They turned to go, and once more on deck, they stopped to watch the sea. Near the indistinct horizon, a sharp tongue of land outlined itself with mountains. The cliffs were chalky on one side, then streaked with red and blue clays on the other. There was a reddish glow beyond one mountain, like the shimmering of a volcano. And dark as most of it was, it was a distinct darkness, backed with purple, or broken by the warm, differing grays of individual rocks. Even through the night, at this distance, beyond the silver crescent of the beach, the jungle looked rich, green even in the darkness, redolently full and quiveringly heavy with life.

And then the thin screams ...

CHAPTER VI

Geo rolled over and out of sleep, stones and moss beneath his shoulder. He grabbed his sword and was on his feet instantly. Iimmi was also standing with raised blade. The river sloshed coldly behind them.

The thin screaming came again, like a hot wire drawn down the gelid morning. Snake and Urson were also up, now. The sounds came from the direction of the ruined barracks. Geo started forward, cautiously, curiosity drawing him toward the sound, fear sending him from the relatively unprotected bank and into the woods. The others followed him.

Abruptly they reached the edge of the forest's wall, beyond which was the clear space before the broken building. They crouched now, behind the trees, watching, fascinated.

Between ape and man, it hovered at the edge of the forest in the shadow. It was Snake's height, but more of Urson's build. An animal pelt wrapped its middle and went over its shoulder, clothing it more fully than either of the four humans were clothed. Thick-footed, great-handed, it loped four steps into the clearing, uttered its piercing shriek, and fell on a hunk of flesh that last night's beasts had dropped from the sky. Its head rocked back and forth as it tore at its

food. Once it raised its head and a sliver of flesh shook from its teeth before the face dropped again to devour.

They watched the huge fingers upon broad flat palms, tipped with bronze-colored claws, convulse again and again, reflexively, into the gray, fibrous meat while the fanged mouth ripped.

Whether it was a shift of breeze, or a final reflex, Geo couldn't tell, but one of the membranous sails raised darkly and beat about the oblivious animal that fed on its corpse.

"Come on," Urson said. "Let's go."

A thin scream sounded behind them, and they whirled.

It crouched apishly, the bronze-clawed fingers opened and closed like breathing, and the shaggy head was knotted with dirt and twigs. The breath hissed from the faintly moving, full lips.

Urson reached for his sword, but Iimmi saw him and whispered, "No, don't."

The Negro extended his hand and moved slowly forward. The hulking form took a step back, and mewed.

Geo suddenly caught the idea. Coming up beside Iimmi, he made a quick series of snaps with his fingers and said in a coaxing, baby voice. "Come, come, come." He laughed softly to Urson back over his shoulder. "It won't hurt us," he said.

"If we don't hurt it," added Iimmi. "It's some sort of necrophage."

"A what?" asked Urson.

"It only eats dead things," Geo explained. "They're mentioned in some of the old legends. Apparently, after the Great Fire, so the story goes, there were more of these things around than anything else. In Leptar, though, they became extinct."

"Come here, cutie," said Iimmi. "Nice little, sweet little, pretty little thing."

It mewed again, bowed its head, came over and rubbed against Iimmi's hip. "Smells like hell," the Negro observed, scratching behind its ear. "Watch out there, big boy!" The beast gave a particularly affectionate rub that almost upset Iimmi's balance.

"Leave your pet alone," said Urson, "and let's get going."

Geo patted the ape-like skull. "So long, beautiful," he said. They turned

toward the river again.

As they emerged on the rocky bank, Geo said, "Well, at least we know we have seven days to get to the Temple of Hama and out again."

"What do you mean?" asked Iimmi.

"Don't you remember the dream, back on the ship?"

"Who was thinking that?" asked Iimmi.

"Jordde, the first mate."

"He makes everybody look dead. I thought I was having a nightmare. I could hardly recognize the captain."

"You see one reason for believing he's a spy?"

"Because of the way he sees things?" Again he smiled. "A poet's reason, I'm afraid. But I see."

The thin shriek sounded behind them, and they turned to see the hulking form crouched on the rocks above them.

"Uh-oh," said Urson, "there's your cute friend."

"I hope we haven't picked up a tag-a-long for the rest of the trip," said Geo.

It loped down over the rocks and stopped just before them.

"What's it got?" Iimmi asked.

"I can't tell," said Geo.

Reaching into the bib of its animal skin, it brought out a gray hunk of meat and held it toward them.

Iimmi laughed. "Breakfast," he said.

"That!" demanded Urson.

"Can you suggest anything better?" Geo asked. He took the meat from the beast's claws. "Thanks, gorgeous."

It turned, looked back, and bounded up the bank and into the forest again.

With fire from the jewels, and wooden spits from the woods, they soon had the meat crackling and brown and the grease bubbling down its sides and hissing onto the hot stones they had used to rim the flame. Urson sat apart, sniffed, and then moved closer, and finally scratched his big fingers through his hairy stomach and said, "Damn it, I'm hungry." They made room for him at the fire without comment.

Sun struck the tops of the trees for the first time that morning and a moment later splashed copper in concentric curves on the water by the rock's edge,

staining it further with dull gold.

"You seem to know your way around awfully well. Have you ever been on Aptor before?" Iimmi asked Snake suddenly.

Snake paused for a moment. Then he nodded, slowly.

They were all silent now.

Finally Geo asked, "What made you ask that?"

"Something in your first theory," Iimmi said. "I've been thinking it for some time, and I guess you knew I was thinking it too, Four Arms. You thought Jordde wanted to get rid of me, Whitey, and Snake, and that it was just an accident that he caught Whitey first instead of Snake. You thought he wanted to get rid of Whitey and me because of something we'd seen, or might have seen, when we were on Aptor with Argo. I just thought perhaps he wanted to get rid of Snake for the same reason. Which meant he might have been on Aptor before, too."

"Jordde was on Aptor before," said Urson. "You said that's when he became a spy for them."

They all turned to Snake who stood quietly.

"I don't think we ought to ask him any more questions," said Iimmi. "The answers aren't going to do us any good, and no matter what we find out, we've got a job to do, and seven, no—six and a half days to do it in."

Snake quietly handed the metal chain with the pendant jewel back to Iimmi. The dark man put it around his neck once more and they turned up the river.

By twelve, the sun had parched the sky. Once they stopped to swim and cool themselves. Chill water gave before reaching arms and lowered faces. They even dove in search of their aquatic helpers, but grubbed the pebbly bottom of the river with blind fingers instead, coming up with dripping twigs and smooth wet stones. Soon, they were in a splashing match, of which it is fair to say, Snake won—hands down.

Hunger thrust its sharp finger into their abdomens once more, only a mile on. "Maybe we should have saved some of that stuff from breakfast," muttered Urson.

Iimmi suddenly broke away from the bank toward the forest.

"Come on," he said. "Let's get some food."

The building they suddenly came upon had tongues of moss licking twenty to fifty feet up the loosely mortared stones. A hundred yards from the water, the jungle came right to its edges. The whole edifice had sunk a bit to one side in the boggy soil. It was a far more stolid and primitive structure than the barracks. They scraped and hacked in front of the entrance where two great columns of stone, six feet across at the base, rose fifty feet to a supported arch. The stones of the building were rough and unfinished.

"It's a temple," Geo suddenly said.

And again they fell back to work. What spots of light spilled through the twisted net of jungle stopped at the total shadow beneath the great arch. A line of blackness up one side of the basalt door showed that it was ajar. Now they mounted the steps, moving aside a fallen branch which chattered leaves at them. Geo, Iimmi, then Snake, and at last Urson, squeezed through the door.

Ceiling blocks had fallen from the high vault so that three shafts of sun struck through the continual shift of dust to the littered floor.

"Do you think it's Hama's temple?" Urson asked. His voice came back in the stone room, small and hollow.

"I doubt it," said Iimmi. "At least not the one we're supposed to find."

"Maybe it's an abandoned one," said Geo, "and we can find out something useful from it."

Something large and dark suddenly flapped through a far shaft of sun. They stepped back. After a moment of silence, Geo handed his jewel to Snake. "Make some light in here," he said.

The blue green glow flowed from the up-raised jewel in Snake's hand. As the light flared, and flared brighter, they saw that the flapping had come from a medium-sized bird that was perched harmlessly on an arch that ran between two columns. It ducked its head at them, cawed harshly, and then flapped from its perch and out one of the apertures in the ceiling, the sound of its wings still thrumming in echo seconds after it was gone.

There were doors between the columns, and one far wall had not withstood time's sledge. A gaping rent was nearly blocked with vines except for a dim, green-tinted shimmer that broke in here and there through the uneven foliage.

Behind a twisted metal rail and raised on steps of stone, the ruins of a huge

statue sat. Carved from black rock, it represented a man seated cross-legged on a dais. An arm and shoulder had broken off and lay in pieces on the altar steps. The hand, its fingers as thick as Urson's thigh, lay just behind the altar rail. The head was completely missing. Both the hand still on the statue and the one in front of them on the steps looked as though they had once held something, but whatever it was had been removed.

Iimmi was moving along the rail to where a set of stone boxes were placed like foot stones along the side of the altar. "Here, Snake," he called. "Bring a light over here." Snake obeyed, and with Geo's and Urson's help, he loosened one of the lids.

"What's in there?" Urson asked.

"Books," said Iimmi, lifting out one dusty volume. Geo peered over his shoulder while the dark fingers turned the pages. "Old rituals," Iimmi said. "Look here," and he pointed to one of them. "You can still read them."

"Let me see," Geo said. "You know I studied with Eadnu at the University of Olcse Olwnh."

Iimmi looked up and laughed. "I thought some of your ideas sounded familiar. I was a pupil of Welis."

"You were at Olcse Olwnh too?" Geo asked.

"Um-hm," said Iimmi turning the pages. "I signed aboard this ship as a summer job. If I'd known where we'd end up, I don't think I'd have gone, though."

Stomach pangs were forgotten.

"These rituals are not at all like those of the Goddess," Iimmi observed.

"Apparently not," agreed Geo. "Wait!" Iimmi had been turning pages at random. "Look there!" Geo pointed.

"What is it?" Iimmi asked.

"The lines," Geo said. "The ones Argo recited." He read out loud:

"Forked in the heart of the dark oakthe circlet of his sashrimmed where the eye of Hama brokewith fire, smoke, and ash.

Freeze the drop in the handand break the earth with singing.Hail the height of a manand also the height of a woman.

The eyes have imprisoned a vision.The ash tree dribbles with blood.Thrust from the gates of the prisonsmear the yew tree with mud."

"It's the other version of the poem I found in the pre-purge rituals of Argo. I wonder if there were any more poems in the old rituals of Leptar that parallel those of Aptor and Hama?"

"Probably," Iimmi said. "Especially if the first invasion from Aptor took place just before, and probably caused, the purges."

"What about food?" Urson suddenly asked from where he now sat on the altar steps. "You two scholars have the rest of time to argue. But we may starve before you can enjoy the leisure."

"He's right," said Iimmi. "Besides, we have to get going."

"Would you two consider it an imposition to set your minds to procuring us some food?" Urson asked.

"Wait a minute," Iimmi said. "Here's a section on the burial of the dead. Yes, I thought so." He read out loud now:

"Sink the bright dead with misgivingfrom the half-light of the living ..."

"What does that mean?" asked Urson.

"It means that the dead are buried with all the accoutrements of the living. That means that they put food in the graves."

"Over here," cried Iimmi. With Snake following, they came to the row of sealed doors behind the columns along the wall. Iimmi looked at the inscription. "Tombs," he reported. He turned the handles, a double set of rings, which he twisted in opposite directions. "In an old, uncared-for temple like this, the lock mechanisms must have rusted by now if they're at all like the ancient tombs of Leptar."

"Have you studied the ancient tombs?" asked Geo excitedly. "Professor Eadnu always considered them a waste of time."

"That's all Welis ever talked about," laughed Iimmi. "Here, Urson, you set your back to this a moment."

Grumbling, Urson came forward, took the rings, and twisted. One snapped off in his hand. The other gave, with a crumbling sound inside the door.

"I think that does it," Iimmi said.

They all helped pull now, and suddenly the door gave an inch, and then, on the next tug, swung free.

Snake proceeded them into the tiny stone cell.

On a rock table, lying on its side, was a bald, shriveled, sexless body.

Around the floor were a few sealed jars, heaps of parchment, and a few piles of ornaments.

Iimmi moved among the jars. "This one has grain," he said. "Give me a hand." Geo helped him lug the big pottery vessel to the door.

Suddenly a thin shriek scarred the dusty air, and both boys stumbled. The jar hit the ground, split, and grain heaped over the floor. The shriek came again.

Geo saw, there on the edge of the broken wall across the temple from them five of the ape-like figures crouched before the thickly shingled leaves, just visible in the uneven light. One leapt from the wall now and ran wailing across the littered temple floor, straight for the door of the tomb. Two others followed, and then two others. More had mounted the broken ridge of stone.

Only a greenish rectangle of light fell through the tomb's door as the loping forms burst into the room, one, and then its two companions. Claws and teeth closed on the shriveled skin. The body rolled beneath the ripping hands and mouths, for one arm swept into the air above their lowered heads and humped backs. It fell on the edge of the rock table, broke at the mid-forearm, and the skeletal hand fell to the floor, shattering like china, into a dozen pieces.

They backed to the temple door. Then they turned and ran down the temple steps. The sunlight on the broad rocks touched them; they became still, breathed deeply. They walked quietly. Hunger returned slowly after that, and occasionally one would look aside into the faces of the others in attempt to identify the horror that still pulsed behind their eyes.

CHAPTER VII

It was Urson who first pointed it out. "Look at the far bank," he said.

Across from them, they could make out an obviously man-made stone embankment.

A few hundred feet further on, Iimmi sighted the spires above the trees, still across the river from them. They could figure nothing for an explanation, till suddenly the trees ceased on the opposite bank and the buildings and towers of a great city broke the sky. Elevated highways looped tower after tower, many of them broken, their ends dangling colossaly to the streets. The docks of the city just across from them were completely deserted.

It was Geo who suggested, "Perhaps Hama's temple is in there. After all, Argo's largest temple is in Leptar's biggest city."

"And what city in Leptar is *that* big?" breathed Urson, awfully.

"How do we get across?" asked Iimmi.

But Snake had already started down to the water.

"I guess we follow him," said Geo, climbing down over the rocks.

Snake dove into the water. Iimmi, Geo, and Urson followed. Before he had taken two strokes, Geo felt familiar hands suddenly grasp his body from below. This time he did not fight, and there was a sudden sense of speed, of sinking through consciousness.

Then he was bobbing up through chill water with the rising embankment of stones to one side and the broad river to the other. He switched from skulling into a crawl now, wondering how to scale the stones when he saw the rusted metal ladder leading into the water. He caught hold of the sides and pulled himself up.

Snake came up now, and then Urson. And, at last Iimmi joined them on the broad ridge of concrete that walled the flowing river. Together now on the wharf, they turned to the city.

Near them, piles of debris lay between two taller buildings. After a few minutes' walk the building walls had reached canyon size. "Now, how are you going to go about looking for the temple?" Urson asked.

"Maybe we can take a look from the top of one of these buildings," Geo suggested.

They turned toward a random building. A slab of metal had torn away from the wall, and stepping through, they found themselves in a huge hollow room. Dim light came from a number of white tubes set around the wall. Only a quarter of them were lit, and one was flickering. Hung from the center of the room was a metal sign which read:

NEW EDISON ELECTRIC COMPANY

and beneath it, in smaller letters:

"Light Down The Ages"

One of the huge cylinders, across the floor, was buzzing.

As they mounted a spiral staircase to the next floor the great room turned about them, sinking. At last they stepped up into a dark corridor. A red light glowed at the end which said: EXIT.

Doors outlined themselves along the hall in a red haze. Geo moved to one at random and opened it. Natural light fell in on them as the others came to see. They entered a room whose outer wall was torn away. The floor broke off irregularly over thrusting girders.

"What could have happened to it?" Urson asked.

"See," Iimmi explained. "That roadway must have crashed into the wall and knocked it away."

A twenty-foot ribbon of road veered into the room at an insane angle. The railing was twisted, but there were the stalks of street lights still intact along the edges.

"Do you think we could climb that?" asked Geo. "It doesn't look too steep."

"For what?" Urson wanted to know.

"To get some place high enough to see if there's anything that looks like a temple."

"Oh," said Urson in a reconciled voice.

In general the walk was in good shape. Occasional sections of railing had twisted away, but the road itself mounted surely between the sheering faces of the buildings on either side of them through advancing sunset.

It branched before them and they went left. It branched again and again they avoided the right-handed road. A sign, half the length of a three masted ship, hung lopsidedly above them on a building to one side.

WMTH

The Hub Of World News, Communication, & Entertainment

As they rounded the corner of the building, Snake suddenly stopped and put his hand to his head.

"What is it?" asked Geo.

Snake took a step backward. Then he pointed to WMTH. *It ... hurts.*

"What hurts?" asked Iimmi.

Snake pointed to the building again.

"Is there someone in there thinking too loud?"

Thinking ... machine, Snake said. *Radio ...*

"A radio is a thinking machine and there's one in there that's hurting your head?" interpreted Iimmi, tentatively, and with a question mark.

Snake nodded.

"How come the one he showed us before didn't hurt him?" Urson wanted to know.

Iimmi looked up at the imposing housing of WMTH. "Maybe this one's a lot bigger."

"Look," Geo said to Snake, "you stay here, and if we see anything, we'll come back and report, all right?"

"Maybe it stops later on," Urson said, "and if he ran forward, he could get out the other side. It may just stop after a hundred feet or so."

"Why so anxious?" asked Iimmi.

"The jewels," said Urson. "Who's going to get us out of trouble if we should meet up with anything else?"

They were silent then. Their shadows faded over the pavement as the yellow tinge in the sky turned blue. "I guess it's up to Snake," Geo said. "Do you think you can make it?"

Snake paused for a moment, then shook his head.

"Well," Geo said to the others, "come on then."

Around them was a sudden click, and lights flickered all along the edges of the road.

"Come on," Geo said again, and once more they started, passing the lights which wheeled double and triple shadows about them over the road and the opposite railing. When they reached the next turn off that led to a still higher ramp, Geo looked back. Snake's miniature figure sat on the edge of the road's

railing, his feet on the lower rung, one pair of arms folded, one pair of elbows on his knees. The light above him.

"Keep track of the turns," said Geo.

"I'm keeping," Iimmi assured him.

"By the time we get to the top of whatever we're trying to get to the top of," rumbled Urson, "we won't be able to see anything. It'll be too dark."

"Then let's hurry," Geo admonished.

Sunset stained one side of the towers copper while blue shadows hugged the other. By way of a plastic-domed stairway, they mounted another eighty feet to a broader highway where they could look down on the band of lights which was the one they had just left. They were beginning to clear the roofs of the lower buildings now.

On this road fewer lights were working. They were just about to enter a dark section when a figure appeared in silhouette at the other end.

They stopped, but the figure was suddenly gone. A little farther, Geo suddenly halted and said, "There!"

Two hundred feet ahead of them, what may have been a naked woman rose from the ground, and began to walk backwards until she disappeared into the next dark length of road.

"Do you think she was running away from us?" Iimmi asked.

Urson reached out and touched Iimmi's jewel. "I wish we have some more light around here."

"Yeah," Iimmi agreed. They continued.

The skeleton lay at the twilight edge of the next stretch of functioning lights. The rib cage marked sharp lines on the pavement with shadow from the lamps' glare.

"Do we turn back now?" Urson asked.

"A skeleton can't hurt you," Iimmi said.

"But what about the live one we saw?" countered Urson.

"... and here she comes now," Geo whispered in a cynical stage voice.

In fact two figures approached them through the shadow. As Urson, Geo and Iimmi moved closer, one stopped, and then the other a few steps before the first. Then they dropped. Geo couldn't tell if they fell, or lay down quickly on the roadway. But they seemed to have disappeared.

"Go on?" asked Urson.

"Go on," said Geo.

Pause. "Go on," from Geo.

Two more skeletons lay on the road where the figures had disappeared a minute before. "They don't seem dangerous," Geo said. "But what do they do? Die every time they see us?"

"Hey," Iimmi said. "What's that? Listen."

It was a sickly liquid sound, like mud dropping into itself. Something was falling from the sky. No, not the sky, but from the roadway that crossed fifty feet above them. Looking down again, they saw that a blob of something was growing on the pavement ten feet from them.

"Come on," Geo said, and they skirted the mess dripping from above them, and continued up the road, passing four more skeletons. The sound behind them turned into a wet sloshing. Turning, they saw it emerge into the light—shapeless and jelly-green under the white flare. Impaling its membrane on the skeletons, the mass flowed around them, faster, covering them, molding to them. There was a final surge, a shrinking, and its shapelessness contracted into limbs, a head, feet. The naked man-thing pushed itself to its knees and then stood straight, the flesh by now opaque. Eye sockets caved into the face. A mouth ripped apart on the skull, and the chest began to move with a wet steamy sound in irregular gasps.

It began to walk toward them, raising its hands from its sides. Then, behind it in the darkness, they saw more coming.

"*Damn*," said Urson. "What do they...?"

"One, or both, of two things," Iimmi answered, backing away. "More meat, or more bones."

"Whoops," Geo said. "Look back there!"

They whirled and saw seven more figures standing quietly behind them, while the ones in front advanced.

A covered flight of stairs had its entrance nearby, leading to the next level of highway. They ducked into it and fled up the steps. Geo glanced back once; one of the forms had reached the entrance and had started to climb. He was also, he realized, high enough to get some idea of the city, which stretched, beyond the transparent covering of the steps, away in a web of lighted roadways,

rising, looping, descending. Two glows caught him: one, beyond the river, a red haze that flickered behind the trees and was reflected on the water itself. The other was within the city itself, orange white, nested among the buildings.

He turned back up the steps. A gurgling sound neared them as they reached the top entrance. Geo had only gotten half clear of the entrance when he yelled, "Yikes," and then, "Duck!"

They slipped from the doorway and nearly fell, avoiding a mass of jelly the size of a two-story house which flopped against the entrance. They edged by its pulsing, transparent sides. The lamp light pierced into it a yard, and once a skull swirled toward the surface and then sank again.

Suddenly it sucked away from the entrance and shivered ponderously toward them. Something was happening at the front. Figures, three or four of them, were detaching themselves from the mother mass and preceding it.

They turned and ran along the road, plunging suddenly into an extended darkened section. A moment later there was a glow in front of them and suddenly Urson yelled, "Watch it!"

Abruptly the road sheered off in front of them; they halted, and then approached the edge slowly. The surface of the road tore away and the girders descended, webbing toward the ruined stump of a building from which the orange-white glow rose. The glow came from the heart of the edifice. "What do you think it is?" asked Geo.

"I don't know," said Iimmi.

They looked, and in the shadow, numberless figures were marching after them. Suddenly the figures fell to the ground, and flesh rolled forward from bone, congealed, and rose quiveringly into the edge of the light.

Iimmi started out first on the skeletal, twisted structure that descended to the glowing pit. "You're crazy," Geo said. The thing flopped forward another yard with a sick sound. "Hurry up," Geo added. With Urson in the middle, they started out along the twenty-inch wide girder. Lit from beneath, their bodies were in the shadow of the girder. Only their outstretched arms burned in the pale orange light as they balanced themselves.

Before them, faintly legible on the broken building into which they were descending was the sign: ATOMIC ENERGY FOR THE BETTERMENT OF MAN

It was flanked by two purple trefoils. The beam twisted sideways, and then dropped. Iimmi made the turn, dropped to his knees and hands, and then started to let himself down the four feet to the next small section of concrete. Once he saw something, let out a low whistle, but continued to lower himself to the straightened girder. Urson made the turn next, while Geo knelt in front of him. When Urson saw what Iimmi had seen, his hand shot to Geo's chest and grabbed the jewel. Geo took his wrist. "That won't help us now," he said.

Urson expelled a breath, and then continued down, slowly. Quickly Geo turned to drop now.

The entire beam structure over which they had just come was coated with a trembling thickness of the stuff. Globs dripped from the steel shafts, glowing in the light from below, quivering, smoking, splashing off into the darkness. Here and there something half human would rise either to look around or to pull the collective mass further on, but then it would fall back and dissolve. It bulged forward, smoking now, bits of it shriveling off and falling away. Geo was about to descend, but suddenly he called, "Wait a minute." The others stayed still.

It wasn't making progress. It rolled to a certain point in the pale, sherbert-colored light, globbed up, smoked, and fell away. And smoked. And dripped.

"Can't it get any farther?" Urson asked.

"It doesn't look it," said Geo.

A skeleton stood up, flesh-covered in the orange light. It tottered, its surface steaming, and then fell with a sucking noise, down into the hundreds of feet of shadow. Geo was holding tight onto the girder in front of him.

The pale light fell cleanly over his hand, wrist, and midway up his forearm.

What happened now made him squeeze until sweat came: the entire Gargantuan mass, which had only extended tentacles till now, pulsed to the edge of the jagged road, draped itself over the web of girders, and flung itself forward on the spindly metal threads. It careened toward them, and the three jerked themselves back.

Then it stopped, quivering. It boiled, it burned, it writhed, sinking, smoking through the spaces in the naked girder work. It tried to crawl backwards. Human figures leaped from its mass toward the edge of the road, missed, and plummetted like smoking bullets. It hurled a great pseudopod back toward the safety of the road; it fell short, flopped downward, and the whole mass shook

beneath the smoke that rose from it. It pulled free of the support, tentacles sliding across steel, whipping into the air. Then it dropped into the shadows, breaking into a half dozen pieces before they lost sight of it below.

Geo released his hand. "My arm hurts," he said, shaking it.

They climbed up to the road again, carefully. "Any ideas what happened?" asked Iimmi.

"What ever it was, I'm glad it did," said Urson.

Something clattered before them in the darkness.

"What was that?" asked Urson, stopping.

"My foot hit something," Geo said.

"What was it?" asked Urson.

"Never mind," said Geo. "Come on."

Fifteen minutes brought them to the stairway that went to the lower highway. Iimmi's memory proved good, and for an hour they went quickly, Iimmi making no hesitation it turnings.

"God," Geo said, rubbing his forearm with his other hand. "I must have pulled hell out of it back there. It hurts like the devil."

Urson looked at his hand and rubbed them together.

"My hands feel sort of funny too," Iimmi said. "Like they've been wind-burned."

"Wind-burned nothing," said Geo. "This hurts."

Twenty minutes later, Iimmi said, "Well, this should be about it."

"Hey," said Urson. "There's Snake." As they ran forward, now, the boy jumped off the rail, grabbed their shoulders, and grinned. Then he began to tug them forward.

"You lucky little so and so," said Urson. "I wish you'd been with us."

"He probably was, in spirit, if not in body," Geo laughed.

Snake nodded.

"What are you pulling for?" Urson asked. "Say, if you're going to get headaches like that, you'd better teach us what to do with them beads there." He pointed to the jewel at Iimmi's and Geo's necks.

Snake nodded and tugged forward again.

"He wants us to hurry," Geo said. "We better get going."

The road finally tore completely away, and four feet below them, over the

twisted rail, was the mouth of a street that led into the waterfront. Snake, Iimmi and then Urson vaulted over. Urson shook his hands painfully when he landed.

"Give me a hand, will you?" Geo asked. "My arm is really shot." Urson helped his friend over.

Almost as though it had been in wait, thick liquid gurgling sounded behind them. Like a wounded thing it emerged from behind the broken highway, bulging up into the light which shone on the ripples in its shriveled membrane.

"Run it!" bawled Urson, and they took off down the street. In the moonlight, the ruined piers spread along the waterfront to either side of them, some even slanting into the silvered water.

Turning once, they saw it bloat the entrance of the street, fill it, and then pour across the broken stones, slipping across the rubble of the smashed wharf.

When Geo hit water, he was aware of two things immediately as the hands reached for his body. First, the thong was yanked from around his neck. Second, pain seared his arm as if the bones and ligaments were suddenly replaced by white-hot cords of steel, and every vein and capillary had become part of a webbing of red fire.

It was a long time before consciousness. Once he was lifted. And when he opened his eyes, the white moon was moving incredibly fast above him toward the dark shapes of leaves. Was he being carried? And his arm hurt. There was more drowsy half consciousness, and once a great deal of pain. When he opened his mouth to scream, however, darkness flowed in, swathed his tongue, and he swallowed the darkness down into his body and into his head, and called it sleep—

A spool of copper wire unrolled over the black tile floor. Scoop it up quick. Damn, let me get out of here. I run past the black columns, glimpsing the cavernous room, and the black statue at the other end, huge, and rising into shadows. Men in dark robes are walking around. (Not only could they see, this time; they could hear the thinking.) Just don't feel up to praying this afternoon. I am before the door, and above it, a black disk with three white eyes on it. Through the door, up black stone steps. Wonder if anyone will be up there now. Just my luck I'll find the Old Man himself. Another door with a black circle above it. Push it open slowly, cool on my hands. A man is standing inside, looking into

a large screen of glass. Figures moving on it. Can't make them out, he's in the way. Oh, there's another one.

"I don't know whether to call it success or failure," one says.

"The jewels are ... safe or lost?"

"What do you call it?" the first one asks. "I don't know any more." He sighs. "I don't think I've taken my eyes off this thing for more than two hours since they got to the beach. Every mile they've come closer has made my blood run colder."

"What do we report to Hama Incarnate?"

"It would be silly to say anything now. We just don't know."

"Well," says the other, "at least we can do something with the City of New Hope since they got rid of that super-amoeba."

"Are you sure they really got it?"

"After the burning it received over that naked atom pile? It was all it could do to get to the waterfront. It's just about fried up and blown away already."

"And how safe would you call them?" the other asks.

"Right now? I wouldn't call them anything."

Something glitters on the table by the door. Yes, there it is. In the pile of strange equipment is a U-shaped scrap of metal. Just what I need. Hot damn, adhesive tape too. Quick, there, before they see. Fine. Now, let the door close, real slow. Ooops. It clicked. Now come on, look innocent, in case they come out. I hope the Old Man isn't watching. Guess they're not coming. And down the stairs again, the black stone walls moving past. Out another door, into the garden, dark flowers, purple, deep red, some with blue in them, and big stone urns. Some priests are coming down the path. Ooops again, there's old Dunderhead. He'll want me inside praying. Duck down behind that urn. Here we go. What'll I do if he catches me? Really sir, I have nothing under my choir robe. Peek out.

Very, very small sigh of relief, now. Can't afford to be too loud around here. They're gone. Let's examine the loot. The black stone urn has one handle above. It's about eight feet tall. One, two, three: jump, and ... hold ... on ... and ... pull. And try to get to the top. There we go. Cold stone between my toes. And over the edge, where it's filled with dirt. Pant. Pant. Pant.

Should be just over here, if I remember right. Dig, dig, dig. Damp earth feels good in your hands. Ow! my finger. There it is. A brown paper bag under granules of black earth. Lift it out. Is it all there? Open it up, peer in. Down at

the bottom, beyond the folds of the edges where the top had been twisted tightly together, are the tiny scraps of copper, a few long pieces of dark metal, a piece of board, some brads. To this my grubby little hand adds the spool of copper wire and the U-shaped scrap of metal. Now, slip it into my robe and—once you get up here, how the hell do you get down? I always forget. Turn around, climb over the edge, like this, and let yourself down. Damn, my robe's caught on the handle.

And drop.

Skinned my shin again. Some day I'll learn.

Now let's see if we can figure this thing out. Gotta crouch down and get to work. Here we go. Open the bag, and turn the contents out in the lap of the dark-colored robe, grubby hands poking.

The U-shaped metal, the copper wire, fine. Hold the end of the wire to the metal, and maneuver the spool around the end of the wire to the metal, and maneuver the spool around the end of the rod. Around. And around. And around. Here we go round the mulberry bush, the mulberry bush, the mulberry bush. Here we go round the mulberry bush; I'll have me a coil by the morning.

Suddenly a harsh voice in the distance: "And what do you think you're doing?"

Dunderhead rides again. "Nothing, sir," as metal and scraps and wires fly frantically into the paper bag.

The voice: "All novices under twenty must report to afternoon services without fail!"

"Yes, sir. Coming right along, sir." Paper bag jammed equally frantically into the folds of my robe. Not a moment's peace. Not a moment's! Through the garden with lowered eyes, past a dour-looking priest with a small paunch. There are mirrors along the vestibule, huge slabs of glass that rise thirty feet, reflecting the blue and yellow light back and forth from the colored windows of the temple. In the mirror I see pass: a dour-looking priest, proceeded by a smaller figure with short red hair and a spray of freckles over a flattish nose. And as we pass into prayer, there is the maddening, almost inaudible jingling of metal scraps, muffled by the dark robe.

Geo woke up, and almost everything was white.

CHAPTER VIII

The pale woman with the tiny eyes rose from over him. Her hair dropped like white silk threads over her shoulders. "You are awake?" she asked. "Do you understand me?"

"Am I at—at Hama's temple?" he asked, the remnants of the dream still blowing in at the edges of his mind, like shredding cloth. "My friends, where are they?"

The woman laughed. "Your friends are all right. You came out the worst." Another laugh. "You ask if this is Hama's temple? But you can see, can you not? You have eyes. Don't you recognize the color of the White Goddess Argo?"

Geo looked around the room. It was white marble, and there was no direct source of light. The walls simply glowed.

"My friends...." Geo said again.

"They are fine. We were able to completely restore their flesh to health. They must have exposed their hands to the direct beam of the radiation for only a few seconds. But the whole first half of your arm had apparently lain in the deadly rays for some minutes. You were not as lucky as they."

Another thought rushed Geo's mind now. "The jewels ..." he started to say, but instead of sounding the words, he reached to his throat with both hands. One fell on his naked chest. And there was something very wrong with the other. He sat up in the bed quickly, and looked down. "My arm," he said.

Swathed in white bandages, the limb ended some foot and a half short of where it should have.

"My arm...?" he asked again, with a child's bewilderment. "What happened to my arm?"

"I tried to tell you," the woman said, softly. "We had to amputate half of your arm. If we had not, you would have died."

"My arm," Geo said again, and lay back in the bed.

"It is difficult," the woman said. "It is only a little consolation, I know, but we are blind here. What burned your arm away, took our sight from us when it was much stronger, generations ago. We learned how to battle many of its effects, and had we not rescued you from the river, all of you would have died. You are men who know the religion of Argo, and adhere to it. This another of your party has told us. Be thankful then that you have come under the wing of

the Mother Goddess again, for this is a hostile country." She paused. "Do you wish to talk?"

Geo shook his head.

"I hear the sheets rustle," the woman said, smiling, "which means you either shook or nodded your head. I know from my study of the old customs that one means 'yes' and the other 'no.' But you must have patience with us who cannot see. We are not used to your people. Do you wish to talk?" she repeated.

"Oh," said Geo. "No. No, I don't."

"Very well," the woman said. She rose, still smiling. "I will return later." She walked to a wall in which a door slipped open, and then it closed again, behind her.

He lay still on the bed for a long time. Then he turned over on his stomach. Once he brought the stump under his chest and held the clean bandages in his other hand. Very quickly he let go, and stretched the limb sideways, as far as possible away from him. That didn't work either, so he moved it back down to his side, and let it lay by him under the white sheet.

After a long while, he got up, sat on the edge of the bed, and looked around the room. It was completely bare, with neither windows nor visible doors. He went to the spot through which she had exited, but could find not seam or crack. His tunic, he saw, had been washed, pressed, and laid on the foot of the bed. He slipped it over his head, fumbling with only one arm. Getting the belt together started out to be a problem, but he hooked the buckle around one finger and maneuvered the strap through with the other. He adjusted his leather purse, now empty, on his side. Then he saw that the sword was gone.

An unreal feeling, white like the walls of the room, was beginning to fill him up like a pale mixture of milk and water. He walked around the edge of the room once more, looking for some break.

There was a sound behind him and the tiny-eyed woman in her white robe stood in a triangular doorway. "You're dressed," she smiled. "Good. Are you too tired to come with me? You will eat and see your friends if you feel well enough. Or, I can have the food brought."

"I'll come," Geo said.

She turned, and he followed her into a hall of the same luminous substance. Her heels touched the back of her white robe with each step, but she was silent.

His own bare feet on the cool stones seemed louder than those of the blind woman before him. Suddenly he was in a larger room, with benches. It was a chapel, obviously of Argo because of the altar at the far end, but its detail was strange. Everything was arranged with the white simplicity that one would expect of a people to whom visual adornment meant nothing. He sat down on a bench as the woman said, "Wait here." She disappeared down another hall.

Suddenly the woman returned from the other hallway, followed by Snake. Geo and the four-armed boy looked at each other, silently, as the woman disappeared again. A wish, like a living thing, suddenly writhed into a knot in Geo's stomach, that the boy would say something. He himself could not.

Again she returned, this time with Urson. The big man stepped into the chapel, saw Geo, and exclaimed, "Friend, what happened?" He came to him quickly and placed his warm hands on Geo's shoulders. "What ..." he began, and shook his head.

Geo grinned suddenly, and patted his stump with his good hand. "I guess jelly-belly got something from me after all."

Urson held his own forearm next to Geo's and compared them. There was paleness in both. "I guess none of us got out completely all right. I woke up once while they were taking the scabs off. It was pretty bad, and I went to sleep again fast."

Iimmi came in now. "Well, I was wondering ..." He stopped, and let out a low whistle. "I guess it really got you, brother." His own arms looked as though they had been dipped in bleach up to the mid forearms.

"How did this happen?" Urson asked.

"When we were back doing our tightrope act on those damn girders," explained Iimmi, "our bodies were in the shadow of the girders and the rays only got to our arms. I've got something you'll be interested in too, Geo."

"Just tell me where the hell we are," Urson said.

"We're in a monastery sacred to Argo," Iimmi told him. "It's across the river from the City of New Hope, which is where we were."

"That name sounds familiar; in the ..." began Urson. Snake gave him a quick glance, and he stopped, and then frowned.

"We knew of your presence in the City of New Hope," explained the blind Priestess, "and we found you by the riverside after you swam across. You

managed to cling to life long enough for us to get you back to the monastery and apply what art we could to sooth the burns from the deadly fire."

Geo suddenly saw that there was no jewel around Iimmi's neck either. He could almost feel the hands ripping it from his neck in the water. Iimmi must have made the same discovery, because his pale hand raised to his own chest.

The Priestess beckoned and started down another hall, and again they followed. They arrived at an even larger room, this one set with white marble benches and long white tables. "This is the main dining room of the monastery," their guide explained. "One table has been set up for you. You will not eat with the other priestesses, of course."

"Why not?" asked Iimmi.

Surprise flowed across the blind face. "You are men," she told them, matter of factly. Then she led them to a table where wine, meat, and bowls piled with strange fruit were placed. As they sat down, she disappeared once more.

Geo reached for a knife. For a moment there was silence at the table as the nub of the arm jutted over food. "I guess I just have to learn," he said after the pause.

Halfway through the meal, Urson said, "What about the jewels? Did the Priestess take them from you?"

"They came off in the water," said Iimmi.

Geo nodded corroboration.

"Well, now we really have a problem," said Urson. "Here we are, at a temple of Argo's where we could return the jewels and maybe even get back to the Priestess on the ship, and out of the silly mess, and the jewels are gone."

"I guess that also means our river friends are working for Hama," said Geo.

"Well," Iimmi said, "Hama's got his jewel then, and we're out of the way. Perhaps he delivered us into Argo's hands as a reward for bringing them this far?"

"Since we would have died anyway," said Geo, "I guess he was doing us a favor."

"And you know what that means," Iimmi said, looking at Snake now.

"Huh?" asked Urson. Then he said, "Oh, let the boy speak for himself. All right, Four Arms, are you or are you not a spy for Hama?"

A pained expression came over Snake's face, and he shook his head not in

denial but bewilderment. Suddenly he got up from the table, and ran from the room. Urson looked at the others. "Now don't tell me I hurt his feelings by asking."

"You didn't," said Iimmi, "but I may have. I keep on forgetting that he can read minds."

"What do you mean?" Urson asked.

"Just when you asked him that, a lot of things came together in my mind that would be pretty vicious for him if any of it were true."

"Huh?" asked Urson.

"I think I know what you mean," said Geo.

"I still—"

"It means that he is a spy," explained Iimmi, "and among other things, he was probably lying about the radio back at the city. And that cost Geo his arm."

"Why the—" began Urson, and then looked down the hall where Snake had disappeared.

They didn't eat much more. When they got up, Urson felt sleepy and was shown back to his room.

"May I show my friend what you showed me?" Iimmi asked the Priestess when she returned. "He is also a student of rituals."

"Of course you may," smiled the Priestess.

A door opened and they entered another room similar to the one in which Geo had awakened. As she was about to leave, Iimmi asked, "Wait. Can you tell us how to leave the room ourselves?"

"Why would you want to leave?" she asked.

"For exercise," offered Geo, "and to observe the working of the monastery. Believe us, we are true students of Argo's religion."

"Simply press the wall with your hand, level at your waist, and the door will open. But you must not wander about the monastery. Rites which are not for your eyes are being carried out. Not for your eyes," she repeated. "Strange, this is a phrase that has never left our language. Suddenly, confronted by people who can see, it makes me feel somehow ..." she paused. "Well, that is how to leave the room."

She stepped out, and the door closed behind her.

"Here," said Iimmi, "this is what I wanted to show you." On his bed were a

pile of books, old, but legible. Geo flipped through a few pages. Suddenly he looked up at Iimmi.

"Hey, what are they doing with *printed* books?"

"Question number one," said Iimmi. "Now, for question number two. Look here." He reached over Geo's shoulder and hastened him to one page.

"Why it's the ..." began Geo.

"You're darn right it is," said Iimmi.

HYMN TO THE GODDESS ARGO

Forked in the eye of the bright ashthere the heart of Argo brokeand the hand of the goddess would dashthrough the head of flame, and the smoke.

Burn the grain speck in the handand batter the stars with singing.Hail the height of a man,and also the height of a woman.

The eyes have imprisoned a vision,the ash-tree dribbles with blood.Thrust from the gates of the prison,smear the yew-tree with mud.

"That must be the full version of the poem I found the missing stanza to back in the library at Leptar."

"As I was saying," said Iimmi, "Question number two: what is the relation between the rituals of Hama and the old rituals of Argo. Apparently this particular branch of the religion of the Goddess underwent no purge. And no one at Olcse Olwnh was supposed to know about them."

"I wonder why?" Geo asked.

"That is question number three."

"How did you get a hold of them?"

"Well," said Iimmi, "I sort of suspected they might be here. So I just asked for them. And I think I've got some answers to those questions."

"Fine. Go ahead."

"We'll start from three, go back to one, and then on to two. Nice and orderly," said Iimmi. "Why wasn't anybody supposed to know about the rituals? Simply because they were so similar to the rituals of Hama. You remember some of the others we found in the abandoned temple? If you don't, you can refresh your memory right here. The two sets of rituals run almost parallel, except for a name changed here, a color switched from black to white, a switch in the vegetative symbolism. I guess what happened was that when Hama's forces invaded Leptar five hundred years ago, it didn't take Leptar long to find

out the similarity. From the looks of the City of New Hope, I think it's safe to assume that at one time or another, say five hundred years ago, Aptor's civilization was far higher than Leptar's, and probably wouldn't have had too hard a time beating her in an invasion. So when Leptar captured the first jewel, and somehow did manage to repel Aptor, the priests of Leptar assumed that the safest way to avoid infiltration by Hama and Aptor again would be to make the rituals of the two as different as possible from the ones of their enemy, Hama.

"The ghouls, the bats, they parallel the stories I've heard other sailors tell too closely to be accidents. How many people do you think have been shipwrecked on Aptor and gotten far enough into the place to see what we've seen, and then gotten off again to tell about it?"

"I can think of two," said Geo.

"Huh?" said Iimmi.

"Snake and Jordde," answered Geo. "Remember that Argo said there had been spies from Aptor before. And Jordde is definitely one, and I guess so is Snake."

"True enough," said Iimmi. "I guess that fits into Rule Number One." He got up from the bed. "Come on. Let's take a walk. I want to see some sunlight." They went to the wall. Geo pressed it and a triangular panel slipped back.

When they had rounded four or five turns of hallway, Geo said, "I hope you can remember where we've been."

"I've got a more or less perfect memory for directions," Iimmi said.

Suddenly the passage opened onto steps, and they were looking out upon a huge, unrelieved white chamber. Down a set of thirty marble steps priestesses filed below them in rows, their heads fixed blindly forward.

At the far end was a raised dais with a mammoth statue of a kneeling woman, sculptured of the same effulgent, agate material. "Where do these women come from?" whispered Geo. "And where do they keep the men?"

Iimmi shrugged.

Suddenly, the figure of the blind Priestess was beside them.

"Excuse me, ma'am," Iimmi said, sensing her disapproval of their presence, "we didn't mean to be disrespectful, but we are creatures who are used to natural day and night. We are used to fresh air, green things. This underground whiteness is oppressive to us and makes us restless. Is there any way that you

could show us a way into the open?"

"There is not," returned the blind Priestess quietly and motioned them to follow her from the chamber. "Besides, night is coming on and you are not creatures who relish darkness."

"The night air and the quiet of evening is refreshing to us," countered Iimmi.

"What do you know of the night," answered the priestess with faint cynicism in her low voice. Now they reached the chapel where the friends had first met after their rescue.

"What can you tell us about the Dark God Hama?" Geo asked.

The blind Priestess shrugged, and sat down on one of the benches. "There is little to say. Today he is a fiction, he does not exist. There is only Argo, the One White Goddess."

"But we've heard—" Geo began.

"You were at his abandoned temple," said the Priestess. "You saw yourselves. That is all that is left of Hama. Ghouls prey on the dust of his dead saints. Perhaps, somewhere behind the burning mountain a few of his disciples are left. But Hama is dead in Aptor. You have seen the remains of his city, the City of New Hope. You have also been the first ones to go in and return in nearly five hundred years."

"Is that how long the city has been in ruin?" asked Geo.

"It is."

"What can you tell us about the city?" Iimmi said.

The Priestess sighed again. "There was a time," she began, "generations ago, when Hama was a high God in Aptor. He had many temples, monasteries, and convents devoted to him. We had few. Except for these religious sanctuaries, the land was barbaric, wild, uninhabitable for the most part. There had once been cities in Aptor, but these had been destroyed even earlier by the Great Fire. All that we had was a fantastic record of an unbelievable time before the rain of flame of tremendous power, vast science, and a towering, though degenerate, civilization. These records were extensive, and entirely housed within the monasteries. Outside the monasteries, there was only chaos, where half the children were born dead, and the other half deformed. And with the monstrous races that sprang up over the island now as a reminder to us, we

declared that the magic contained in these chronicles was evil, and must never be released to the world again. But the priests of Hama, decided to use the information in these chronicles, spread it to the people, and declared they would not commit the same mistakes that had brought the Great Fire. They opened the books, and the City of New Hope grew on the far shore of the river. They made giant machines that flew through the air. They constructed immense boats which could sink into the sea and emerge hundreds of miles away in another harbor in another land. They even harnessed for beneficial use the fire metal, uranium, which had brought such terror to the world before and had brought down the flames."

"But they made the same mistake as the people before the Great Fire made?" suggested Iimmi.

"Not exactly," said the Priestess. "That is, they were not so stupid as to misuse the fire metal which ravaged the world so harshly before. History is cyclic, not repetitive. A new power was discovered that dwarfed the significance of the fire metal. It could do all that the fire metal could do, and more efficiently: destroy cities, or warm chilly huts in winter; but, it could also work on men's minds. They say, that before the Great Fire, men wandered the streets of the cities terrified that flames would descend on them any moment and destroy them. They panicked, bought flimsy useless contraptions to guard themselves from the fire. Geo, Iimmi, have you any idea how terrifying it would be to know that while walking the streets, at any moment, your mind might be snatched from you, raped, violated, and left broken in your own skull?

"Only three of these instruments were constructed. But the moment their existence was made known by a few fantastic demonstrations, the City of New Hope began the swerve down the arc of its own self-destruction. It lasted for a year, and ended with the broken wreck you escaped from last night. During that year invasions were launched on the backward nations across the sea with whom months before there had been friendly trade. Civil wars broke out and internal struggles caused the invasions to fall back to the homeland. The instruments were hopelessly lost, but not before the bird machines had even dropped bombs on the City of New Hope itself. The house of the fire metal was broken open to release its death once more. For a hundred years after the end, say our records, the city flamed with light from the destroyed power house.

During the first hundred years more and more of our number were born blind because of the sinking fire in the city. At last we moved underground, but it was too late." She rose from her seat. "And so you see, Hama destroyed himself. Today, loyal to Argo, are all the beasts of the air, of the land ... and of the water."

"What about the—the three instruments?" Geo asked. "What happened to them?"

The blind Priestess turned to him. "Your guess," she said, smiling, "is as good as mine." She turned again and glided softly from the room.

When she left, Iimmi said, "Something is fishy."

"But what is it?" said Geo.

"Well, for one thing," said Iimmi, "we know there is a Hama. From the dream I would say that it's just about the size and organization of this place."

"Just how big is this place anyway?" Geo asked.

"Want to do some more exploring?"

"Sure," he answered. "Do you think she does know about Hama but was just pretending?"

"Could be," said Iimmi. They started off down another corridor. "That bit about going into men's minds with the jewels," Iimmi went on. "It gives me the creeps."

"It's a creepy thing to watch," said Geo. "Argo used it on Snake the first time we saw her. It just turns you into an automaton."

"Then it really is our jewels she was talking about."

Stairs cut a white tunnel into the wall before them, and they mounted upward, coming finally to another corridor. They turned down it and for the first time saw recognizable doors in the wall. "Hey," said Iimmi, "maybe one of these goes outside."

"Fine," said Geo. "This place is beginning to get me." He pushed open a door and stepped in. Except for the flowing white walls, it duplicated in miniature the basement of the New Edison building. Twin dynamos whirred and the walls were laced with pipes.

"Nothing in here," said Iimmi.

They tried a door across the hall now. In this one sat a white porcelain table and floor to ceiling cases of glittering instruments. "I bet this is the room your

arm came off in," Iimmi said.

"Probably," replied Geo.

They came out and continued even farther. In the next room the glow was dimmer, and there was dust on the walls. Iimmi ran his finger over it and looked at the gray crescent left on the bleached flesh.

Two huge screens leaned out from the face of a metal machine. A few dials and a glass meter hung beneath each two yard rounded-rectangle of opaque glass. In front of each was a stand which held something like a set of binoculars and what looked like a pair of ear muffs.

"I bet this place hasn't been used since before these girls went blind," said Geo.

"It looks it," Iimmi said. He stepped up to one of the screens, the one with the fewer dials on it, and turned a switch.

"What did you do that for?" Geo asked.

"Why not?" said Iimmi. Suddenly a flickering of colored lights ran over the screen, swellings of blue, green, shiny scarlets. They blinked. "That's the first color I've seen since I've been here," Iimmi said. The colors grayed, dimmed, congealed into forms, and in a moment they were looking at a bare white room in which stood two barefoot young men. One was a dark Negro with pale hands. The other had an unruly shock of black hair and only one arm.

"Hey," gestured Iimmi, and the figure on the screen gestured too. "That's us." He walked forward and the corresponding figure advanced on the screen. He flicked a dial and the figures exploded into colors and then focused again. "What's that?" asked Iimmi.

In a room stood three of the blind women. On one wall was a smaller screen similar to the one in their own room. The women, of course, were oblivious to the picture on it, but it was the picture on the screen that had stopped Geo. It was a face. A man's face.

One of the women had on an ear muff apparatus and was talking into a small metal rod which she carried with her as she paced.

"But the picture! Don't you recognize him?" demanded Geo.

"It's Jordde!" exclaimed Iimmi. "They must have gotten in contact with our ship and are arranging to send us back."

"I wish I could hear what they're saying," said Geo.

Iimmi looked around and then picked up the metal ear muffs from the stand in front of the screen. "That's what she seems to be listening through," said Iimmi, referring to the Priestess in the picture. "Try them. Go on." He helped Geo fit them over his ears. "Hear anything?"

Geo listened.

"Yes, of course," the Priestess was saying.

"She is set upon staying in the harbor for three more days, to wait out the week," reported Jordde. "I am sure she will not remain any longer. She is still bewildered by me, and the men have become uneasy and may well mutiny if she stays longer."

"We will dispose of the prisoners this evening. There is no chance of their returning," stated the Priestess.

"Detain them for three days, and I do not care what you do with them," said Jordde. "She does not have the jewels, she does not know my—our power; she will be sure to leave at the end of the week."

"It's a pity we have no jewels for all our trouble," said the Priestess. "But at least all three are back in Aptor, and potentially within our grasp."

Jordde laughed. "And Hama never seems to be able to keep hold of them for more then ten minutes before they slip from him again."

"Yours is not to judge either Hama or Argo," stated the Priestess. "You are kept on by us only to do your job. Do it, report, and do not trouble either us or yourself with opinions. They are not appreciated."

"Yes, mistress," returned Jordde.

"Then farewell until next report." She flipped a switch and the picture on the little screen went gray.

Geo turned from the big screen now, and was just about to remove the hearing apparatus when he heard the Priestess say, "Go, prepare the prisoners for the sacrifice of the rising moon. They have seen enough." The woman left the room, Geo finished removing the phones, and Iimmi looked at him.

"What's the matter?"

Geo turned the switch that darkened the screen.

"When are they coming to get us?" Iimmi asked excitedly.

"Right now, probably," Geo said. Then, as best he could, he repeated the conversation he had overheard to Iimmi, whose expression grew more and more

bewildered as Geo went on.

At the end the bewilderment suddenly flared into frayed indignation. "Why?" demanded Iimmi. "Why should we be sacrificed? What is it we've seen too much of, what is it we know? This is the second time it's come close to getting me killed, and I wish to hell I knew what I was supposed to know?"

"We've got to find Urson and get out of here," said Geo. "Hey, what's wrong?"

The indignation had turned into something else. Now Iimmi stood with his eyes shut tight and his face screwed up. Suddenly he relaxed. "I just thought out a message as loud as I could for Snake to get up here and to bring Urson if he's anywhere around."

"But Snake's a spy for ..."

"... for Hama," said Iimmi. "And you know something? I don't care." He closed his eyes again. After a few moments, he opened them. "Well, if he's coming, he's coming. Let's get going."

"But why...?" began Geo, following Iimmi out the door.

"Because I have a poet's feeling that some fancy mind reading may come in handy."

They hurried down the hall, found the stairs, ducked down, and ran along the lower hall. Rounding a second corner, they emerged into the little chapel simultaneously with Urson and Snake.

"I guess I got through," said Iimmi. "Which way do we go?"

"Gentlemen, gentlemen," came a voice from behind them.

Snake took off down one of the passages, and they followed, Urson looking particularly bewildered.

The Priestess glided behind them, calling softly, "Please, my friends, come back. Return with me."

"Find out from her how the hell to get out of this place!" Iimmi bawled up to Snake. The four-armed boy suddenly darted up a flight of stairs, turned a corner, and darted up another. They came out on a hall and followed Snake to the end.

All four of the boy's hands flew at the door handle, turning it carefully, this way, and back.

Two, three seconds.

Geo glanced back and saw the Priestess mount the top of the stairs and begin to come toward them. She seemed to float, her white robes flaring out from her, brushing at the walls.

The door came open, they broke through leaves, and were momentarily standing in a huge field of grass, surrounded by woods. The night was fully lit by the moon.

As they ran through the silver-washed grass, Geo turned to look behind him. The blind Priestess had slowed, her white face turned to the moon. Her hands went to her throat, she unclasped her robe, and the first layer fell away behind her. As she came on, the second layer began to unfold, wet, deathly white, spreading, growing to her arms, articulating itself along the white spines; then, with a horribly familiar shriek, she leapt from the ground and soared upward, her white wings hammering the air.

They fled.

And other dark forms were shadowing the moon. The priestesses across the field joined her aloft in the moon-bleached sky. She overtook the running figures, turned above them, and swooped. The moon lanced white along bared fangs. The night breeze touched pale furry breasts, filled the bellying wings. Only the tiny, darting, blind eyes were red, rubied in a whirl of white.

They crashed into the protective bushes where the winged things could not follow. Branches raked his face as he ran behind the sound the others made. Once he thought he had lost them, but a second later he bumped against Iimmi, who had stopped behind Snake and Urson, in the darkness. Above the trees was a sound like beaten cloth, diminishing, growing, but constant as once more they began to trod through the tangled darkness.

"What the hell ..." Iimmi finally breathed softly, after a minute of walking.

"You know it's beginning to make sense," Geo said, his hand on Iimmi's shoulder. "Remember that man-wolf we met, and that blob in the city? The only thing we've met on this place that can't change shape is the ghouls. I think most animals on this island undergo some sort of metamorphosis."

"What about those first flying things we met?" whispered Urson. "They didn't change into anything."

"We have probably just been guests of the female of the species," said Geo.

"You mean those others could have changed into men too if they wanted?"

Urson asked.

"If they wanted," answered Geo.

In front of them now appeared faint shiftings of silver light. Five minutes later, they were crouching at the edge of the forest, looking down over the rocks at the white shimmerings over the river.

"Into the water?" Geo asked.

Snake shook his head. *Wait* ... came the familiar sound in their heads.

Suddenly a hand raised from the water. Wet and green, it stood a foot or so from the shore in the silver ripples. The chain and the leather thong dangled down the wrist, and swaying there were two bright beads of light.

Iimmi and Geo froze. Urson said, "The jewels...."

Suddenly, crouched low like an animal, the big man sprang onto the rocks and ran toward the river's edge.

Three shadows, one white, two dark, converged above him, cutting the moonlight away from him. If he saw them, he did not stop.

Iimmi and Geo stood up from their crouched positions.

Urson reached the shore, threw himself along the rock, and swiped at the hand. Instantly he was covered by flailing wings. The membranous sails splashed in the water. Two seconds later, Urson rolled from beneath the layers of membrane that still struggled half on land and half in the water. He started forward up the rocks. He slipped, regained his footing, and then came on, nearly falling into Geo's and Iimmi's waiting arms.

"The jewels," Urson breathed.

The struggle continued a minute longer on the water. Something was holding them down, twisting at them. Then suddenly, the creatures stilled, and like great leaves, the three forms drifted apart, caught quietly in the current, and floated away from the rocks.

Then two more forms bobbed to the surface, faces down, rocking gently, backs slicked wet and green, shiny under the moonlight.

"But those were the ones who—" Geo began. "Are they dead?" His face suddenly hurt a little, with something like the pain of verging tears.

Snake nodded.

"Are you sure?" asked Iimmi. His voice came slowly.

Their ... thoughts ... have ... stopped, Snake said.

Crouched down in front of them, Urson opened his great hands. The globes blazed even in the dim light through the leaves, and the chain and the wet thong hung over his palm to the ground. "I have them," he said, "... the jewels!"

CHAPTER IX

Snake reached down, picked the beads up from Urson's hand. The sound of wings had stopped.

"Where do we go now?" Urson asked.

"Follow the general rule, I guess," said Iimmi. "Since we know Hama does have a temple somewhere, we try to find it, get the third jewel, and rescue Argo Incarnate. Then get back to the ship."

"In three days?" asked Urson. They had related the rest of what they had found to him by now. "Well, where do we start looking?"

"The Priestess said something about a band of Hama's disciples behind the fire mountain. That must mean the volcano we saw from the steps in the City of New Hope." Iimmi turned to Snake. "Did you read her mind enough to know if she was telling the truth?"

Snake nodded.

Iimmi paused for a moment. "Well, since the river is that way, we should head," he turned and pointed, "... in that direction."

They fixed their stride now and started through the moon-brushed foliage.

"I still don't understand what was going on back at the monastery," Geo said. "Were they really priestesses of Argo? And what was Jordde doing?"

"I'd say yes on the first question, and guess that Jordde was a spy for them for an answer to the second."

"But what about Argo—I mean Argo on the ship?" asked Geo. "And what about Snake here?"

"Argo on the ship apparently doesn't know about Argo on Aptor," said Iimmi. "That's what Jordde meant when he reported to the priestesses that she was bewildered. She probably thinks just like we did, that he's Hama's spy. And this one here," he gestured to Snake, "I don't know. I just don't know."

In the distance was a red glow in which they could make out the faint lines of the volcano's cone. Snake made lights with the jewels, and once more they began to pick their way over the terrain, barer and barer of vegetation. The earth

became cindery and the air bore the acrid smell of old ashes.

Soon the rim of the crater hung close above them.

Iimmi gazed up at the red haze above them. "I wonder what it's like to look into that thing in the middle of the night?" Twenty feet later Snake's light struck a lava cliff that sheered up into the darkness. Going on beside it, they found a ledge that made an eighteen-inch footpath diagonally up the face.

"We're not going to climb that in the dark, are we?" asked Geo.

"Better than in the light," said Urson. "This way you can't see how far you have to fall."

Thirty feet on, instead of petering out and forcing them to go back, the lip of rock broadened into a level stretch of ground and again they could go straight forward toward the red light above them.

"This is changeable country," Urson muttered.

"Men change into animals," said Geo, "jungles turn to mountains." He reached around and felt the stub of his arm in the dark. "I've changed too, I guess."

Iimmi recited:

"*Change is neither merciful nor just.They say Leonard of Vinci put his trustin faulty paints: Christ's Supper turned to dust.*"

"What's that from?" Geo asked.

"That's one of my bits of original research," Iimmi explained. "It comes from a poem dating back before the Great Fire."

"Who was Leonard of Vinci?" Geo asked.

"An artist, another poet or painter, I suppose," said Iimmi. "But I'm not really sure."

"Who's Christ?" Urson asked.

"Another god."

There were more rocks now, and Geo had to brace his stub against the walls of fissures and hoist himself up with his good hand. The igneous structures were sharp in his palm.

Through the night the glowing rim dropped toward them. With it came a breeze that pushed sulfa powder through their hair and made the edges of their nostrils sting.

The earth became scaley and rotten under their feet. Fatigue tied tiny knots high in their guts so that their stomachs hung like stones.

"I didn't realize how big the crater was," Iimmi said. The red glow cut off at the bottom and took up a quarter of the sky.

"Maybe it'll erupt on us," Urson muttered. He added, "I'm thirsty."

They climbed on. Once Urson looked back and saw Geo had stopped some twenty feet behind them at a niche in the ledge. He turned around and dropped back himself. There was sweat on the boy's up-turned face as the big man came toward him. He could see it in the red haze from the rim.

"Here," Urson said. "Give me a hand."

"I can't," Geo said softly, "or I'll fall."

Urson reached down, now, caught the boy around the chest, and hoisted him over the cropping of rock. "Take it easy," Urson instructed. "You don't have to race with anybody." Together they made their way after the others.

Iimmi and Snake cleared the crater rim first; then Urson and Geo joined them on the pitted ledge. Together they looked into the volcano as red and yellow light fell over their chests and faces.

Gold dribbled the internal slope. Tongues of red rock lapped the sides, and the swirling white basin belched brown blobs of smoke which rose up the far rocks and spilled over the brim a radion away. Light leapt in wavering pylons of blue flame, then sank back into the pit. Winding trails of light webbed the crater's walls, and at places ebon cavities jeweled among the light.

Wind fingered the watchers' hair.

Iimmi saw her first, two hundred feet along the rim. Her drapes, died red and orange in the flame, blew about her as she walked toward them. Iimmi pointed to her, and the others looked up.

As she neared, Geo saw that though she stood very straight, she was old. Her short white hair snapped at the side of her head in the warm breeze. Firelight and shadow fell deeply into the wrinkles of her face. As she approached them, light running like liquid down the side of her winded robe, she smiled and held out her hand.

"Who are you?" Geo suddenly asked.

"*Shadows melt in light of sacred laughter,Hands and houses shall be one*

hereafter.“

recited the woman in a calm, low voice.

She paused. “I am Argo Incarnate, of Leptar.”

“But I thought ...” Iimmi started.

“What did you think?” inquired the elderly woman, gently.

“Nothing,” said Iimmi.

“He thought you were a lot younger,” Urson said. “We’re supposed to take you home.” Suddenly he pointed in to the volcano. “Say, this isn’t any of that funny light like back in the city that burned our hands, only this time it made you old?”

She glanced at the pool of light. “This is natural fire,” she assured them, “a severed artery of the earth’s burning blood. But wounds are natural enough.”

Geo shifted his feet and rubbed his stump.

“We were supposed to take the younger sister of the present Argo Incarnate and return with her to Leptar,” Iimmi explained.

“There are many Argos,” smiled the woman. “The Goddess has many faces. You have seen quite a few since you arrived in this land.”

“I guess we have,” Urson said.

“Are you a prisoner of Hama?” asked Iimmi.

“I am with Hama,” said the woman.

“We are supposed to secure the third jewel and bring it back to the ship. We don’t have much time....”

“Yes,” said Argo.

“Hey, what about that nest of vampires down there,” Urson said, thumbing viciously toward the black behind them. “They said they worshiped Argo. What have you got to do with them? I don’t trust anything on this place very much.”

“The nature of the Goddess is change,” said the woman, looking sadly toward the slope, “from birth, through life, to death,” she looked back up at them, “to birth again. As I said, Argo has many faces. You must be very tired.”

“Yes,” said Geo.

“Then come with me. Please.” She turned, and began to walk back along the rim. Snake and Iimmi started after her, and then came Geo and Urson.

“I don’t like any of this,” the big man whispered to Geo as they came along. “Argo doesn’t mean the same thing in this land like she means on Leptar.

There's nothing but more evil to come out of this. She's leading us into a trap, I tell you. I say the best thing to do is take the jewels we have, turn around, and get the hell out of here. I tell you, Geo...."

"Urson," Geo said.

"Huh?" the big man asked.

"Urson, I'm very tired."

They walked silently for a few steps more. Then Urson heaved up a half disgusted breath, and put his arm around Geo's shoulder. "Come on," he grunted, supporting Geo against his own great form as they progressed along the rocky ledge, following the new Argo.

At last she turned down a trail that dropped into the crater. "Walk carefully here," she said as they turned into the huge pit.

"Something is not right," Urson said softly. "It's a trap I tell you. How does that thing go? I could use it now. *Calmly brother bear* ..."

"*Calm the winter sleep,Fire shall not harm,*"

continued Geo.

"Says who," mumbled Urson glancing into the bowl of flame. Geo went on:

"*water not alarm.While the current grows,amber honey flows,golden salmon leap.*"

"Like I once said before," mused Urson, "In a ..."

"In here," came the voice of Argo. They turned into the dark mouth of one of the caves which pocked the crater's inside wall. "No," she said to Snake, who was about to use the jewels for illumination. "They have been used too much already."

With a small stick taken from a pocket in her robe, she struck a flame against the rock, then raised it to an ornate, branching candelabra that hung from the stone ceiling by brass chains. Flame leapt from cast oil cup to oil cup, from the hand of a demon to a monkey's mouth, from a nymph's belly to the horns of a satyr's head. Chemicals in the cups caused each flame to burn a different color; green, red, blue, and orange white light filled the small chapel and played across the tops of the benches. On the altar sitting on one side of the room were two statues of equal height: a man sitting, and a woman kneeling. Iimmi looked at the altar. Geo and Urson stared at the candelabra.

"What is it?" Iimmi asked when he saw where their eyes were fixed.

"There's one of those things in Argo's cabin on board the ship," Geo said. "And look over there. Where did we see one of those before?" It was a machine with an opaque glass screen, identical to the one in the monastery of Argo.

"Sit down," Argo said. "Sit down."

They sank to the benches; the climb, once halted, knotting their calves and the low muscles on their backs.

"Hama has allowed you the privilege of a chapel even in captivity," commented Iimmi, "but I see you have to share your altar with him."

"But I am Hama's mother," smiled Argo.

Geo and Urson frowned.

"The rituals say that Argo is the mother of all things, the begetter and bearer of all life. I am the mother of all gods as well."

"Those blind women down in the ground," asked Urson, "they aren't really your priestesses, are they? They wanted to kill us. I bet they were really dupes of Hama."

"It isn't so simple," replied Argo. "They are really worshipers of Argo, but as I said, I have many faces. Death as well as life is my province. The dwellers in that convent from which you escaped are a—how shall I say, a degenerate branch of the religion. They were truly blinded by the fall of the City of New Hope. To them, Argo is only death, the dominator of men. For not only is Argo the mother of Hama, she is his wife and daughter."

"Then it's like we figured," said Iimmi. "Jordde isn't a spy for Hama. He's working for the renegade priestesses of Argo."

"Yes," returned Argo, "except that renegade is perhaps the wrong word. They believe that their way is correct, and a respect for belief is essential to the understanding of Man. And it is through understanding that the mysteries that still remain in your mind will be solved."

"Then they must be responsible for all that was going on in Leptar, only somehow blaming it on Hama," said Iimmi. "They were probably just after the jewels, too. You don't look like a prisoner. That must be the whole thing. You're here in league with Hama to prevent the priestesses of Argo from taking over Leptar."

"Nothing could be simpler," said the Goddess. "Unfortunately you are wrong in nearly every other point."

"But then why did Jordde throw the jewel after us when he tore it from Argo's—I mean the other Argo's throat?"

"When he snatched the jewel from around my daughter's neck," added Argo, "he threw it to the creatures of the sea because he knew they would take it back to Aptor. With it once again in the island, the priestesses would have a better chance of getting it; my daughter, acting Argo Incarnate in my absence and her sister's, does not know that what she is fighting is another face of Argo. As far as she is concerned, all her efforts are against the mischief Hama has caused, and truly caused, in Leptar. This ignorance is far greater than you imagine, for beyond these blind creatures is a far greater enemy that she must vanquish."

"Hama...?" began Iimmi.

"Greater than Hama," said old Argo. "It is herself. It is hard for me to watch her and not occasionally call out a word of guidance. With the science here in Aptor it would not be difficult. But I must refrain. I suppose she has actually done well. But there is so much more to do. She has directed you well, and assigned your tasks properly. And until now you have carried them out well."

"She said we were to steal the final jewel from Hama and return with you to the ship," said Geo. "Can you help us with either of these things?"

"The moment I compliment you," laughed Argo, "you completely confuse your mission. Once the jewel is stolen, whom are you supposed to take back to Leptar?"

"Argo Incarnate," Urson said.

"You said that Argo back in the ship was your daughter," said Geo, "but she said you were her younger sister."

"She said nothing of the sort," Argo corrected. "I have two daughters. You have already met one. Now you must rescue the other. When my youngest daughter was ... kidnaped here to Aptor, I was already here, waiting for her. Look."

She turned a dial beneath the screen and lights flickered over the glass until they formed a sleeping figure. She had short red hair, a splash of freckles over a blunt nose, and her hand lay curled in a loose fist near her mouth. A white sheet covered the gentle push of adolescent breasts, and on the table beside her bed was a contraption made of a U-shaped piece of metal mounted

on a board, an incomplete coil of wire, and a few more bits of metal, all sitting on top of a crumpled paper bag.

"That is my youngest daughter," Argo said, switching off the picture. "She is the one you must take back to the ship."

"How shall we steal the jewel?" asked Geo.

Argo turned to Snake. "I believe that was your task." Then she looked around at the other three. "You will need rest. After that you can see about the jewel and my daughter. Come with me, now. Pallets have been set up for you in the far room where you may sleep." She rose and led them to a further chamber. The blankets over the loose boughs seemed to pull them down. Argo pointed to a trickle of water that ran from a basin carved in the rock wall. "This stream is pure. You may drink from it." She pointed to a cloth sack in the corner. "There is fruit in there if you become hungry."

"Sleep!" said Urson, jammed his two fists in the air, and yawned.

As they settled, Argo said, "Poet?"

"Yes?" answered Geo.

"I know you are the tiredest, but I must talk to you alone for a moment or two."

As Geo raised himself, Urson stood up too. "Look," he said to Argo, "he needs the rest more than any of us. If you want to question him about rituals and spells, take Iimmi. He knows just as much as Geo."

"I need a poet," smiled Argo, "not a student. I need one who has suffered as he has. Come."

"Wait," Urson said. He picked the jewel from Geo's chest where Snake had returned it when they entered the chapel. "You better leave this with me."

Geo frowned.

"It still may be a trap," said Urson.

"Leave it with him," suggested Argo, "if it eases him."

Geo let the great hand lift the thong from his neck.

"Now come with me," said Argo.

They left the room and walked back through the chapel to the door. Argo stood in the entrance, looking down at the molten rock. The light sifted through her robe, leaving the darker outline of her body. Without turning, she began to speak. "The fire is a splendid symbol for life, do you agree?"

"And for death," said Geo. "One of Aptor's fires burned my arm away."

"Yes," she turned now. "You and Snake have had the hardest time. Both of you have left your flesh to rot in Aptor. I guess that gives you a closeness to the land." She paused. "You know, he had a great deal more pain than you. Do you know how he lost his tongue? I watched it all from this same screen inside the chapel, and could not help. They jammed their knuckles in his jaws and when the mouth came open, Jordde caught the red flesh with pincers that closed all the way through, and stretched it out as far as it would go. Then he looped the tongue with a thin wire, and then he threw a switch. You do not know what electricity is, do you?"

"I have heard the word."

"Let me just say that when a great deal of it is passed through a thin wire, the wire becomes very hot, white hot. And the white hot loop was tautened until the rope of muscle seared away and just the roasted stump was left. But the child had fainted already. I wonder if the young can really bear more pain than older people."

"Jordde and the blind priestess did that to him?"

"Jordde and some men on the boat that picked up the two of them from the raft on which they had left Aptor."

"Who is Jordde?" Geo asked. "Urson knew him before this as a first mate. But Urson's story told me nothing."

"I know the story," Argo said, "and it tells you something, but something you would perhaps rather not know." She sighed. "Poet, how well do you know yourself?"

"What do you mean?" Geo asked.

"How well do you know the workings of a man, how he manages to function? That is what you will sing of if your songs are to become great."

"I still don't ..."

"I have a question for you, a poetic riddle. Will you try to answer it?"

"If you will answer a not too poetic riddle for me."

"Will you do your best to answer mine?" Argo asked.

"Yes."

"Then I will do my best to answer yours. What is your question?"

"Who is Jordde and why is he doing what he's doing?"

"He was at one time," Argo explained, "a very promising novice for the priesthood of Argo in Leptar, as well as a scholar of myths and rituals like Iimmi and yourself. He also took to the sea to learn of the world, but his boat was wrecked, and he and a few others were cast on Aptor's shore. They strove with Aptor's terrors as you did, and many succumbed. Two, however, a four-armed cabin boy whom you call Snake, and Jordde were each exposed to the forces of Argo and Hama as you have been. One, in his strangeness, could see into men's minds. The other could not. Silently, one swore allegiance to one force, while one swore allegiance to the other. The second part of your question was *why*. Perhaps if you can answer my riddle, you can answer that part yourself. I do know that they were the only two who escaped. I do know that Snake would not tell Jordde his choice, and that Jordde tried to convince the child to follow him. When they were rescued, I know that the argument continued, and that Snake held back with childish tenacity both his decision and his ability to read minds, even under the hot wire and the pincers. The hot wire, incidentally, was something Jordde brought with him from the blind priestesses, according to him, to help the people of Leptar with. It could have been a great use. But recently all he has done with the electricity is construct a larger weapon with it. However, Jordde became a staunch first mate in a year's time. Snake became a waterfront thief. Both waited. Then, when the opportunity arose, both acted. Why? Perhaps you can tell me, poet."

"Thank you for telling me what you know," Geo said. "What is your question?"

She glanced at the flame through the door once more and then recited:

"*By the dark chamber sits its twin,where the body's floods begin;and the two are twinned again,turning out and turning in.*

In the bright chamber runs the lineof the division, silver, fine,diminishing along the lanesof memory to an inward sign.

Fear floods in the turning room;Love breaks in the burning dome."

"It is not one that I have heard before," Geo said. "I'm not even sure I know what the question is. I'm familiar with neither its diction nor style."

"I doubted very much that you would recognize it," smiled Argo.

"Is it part of the pre-purge rituals of Argo?"

"It was written by my youngest daughter," Argo said. "The question is, can

you explain it?"

"Oh," said Geo. "I didn't realize...." He paused. "By the dark chamber sits its twin, moving in and out; and that's where the floods of the body begin. And it's twinned again. The heart?" he suggested. "The four-chambered human heart? That's where the body's flood begins."

"I think that will do for part of the answer."

"The bright chamber," mused Geo. "The burning dome. The human mind, I guess. The line of division, running down the lane of memory—I'm not sure."

"You seem to be doing fairly well."

"Could it refer to something like 'the two sides of every question'?" Geo asked. "Or something similar?"

"It could," Argo said, "though I must confess I hadn't thought of it in that way. But it is the last two lines that puzzle me."

"*Fear floods in the turning room*," repeated Geo; "*Love breaks in the burning dome.* I guess that's the mind and the heart again. You usually think of love with the heart, and fear with the mind. Maybe she meant that they both, the heart and the mind, have control over both love and fear."

"Perhaps she did," Argo smiled. "You must ask her—when you rescue her from the clutches of Hama."

Before turning back to the room with his companions, he looked once more out at the fires of the volcano. Light whirled white and red. Blue tongues licked at black rock siding. He turned away now and went back into the darkness.

CHAPTER X

Dawn light lay a-slant the crater's ridge. Argo pointed down the opposite slope. A black temple was visible at the bottom among trees and lawns. "There is Hama's temple," Argo said. "You have your task. Good luck."

They started down the incline of cinders. It took them an hour to reach the first trees that surrounded the dark buildings and the great gardens. Entering on the first lip of grass, they heard a sudden cluster of notes from one of the trees.

"A bird," Iimmi said. "I haven't heard one of those since I left Leptar."

Suddenly, bright blue and the length of a man's forefinger, a lizard ran halfway down the trunk of the tree. It's sapphire belly heaved in the early light with indrawn breath; then it opened its red mouth, its throat warbled, and there

was another burst of music.

"Oh well," said Iimmi. "I was close."

They walked further, until Iimmi mused, "I wonder why you always think things are going to turn out like you expect."

"Because when something sounds like that," declared Urson, "it usually is a bird!" Suddenly he gave a little shiver. "Lizards," he said.

"It was a pretty lizard," said Iimmi.

"Going around expecting things to be what they seem can get you in trouble —especially on this island," Geo commented.

The angle at which they walked made one of the clumps of tree before them seem to fall apart. A man standing in the center raised his hand and said briskly, "Stop!"

They stopped.

He wore dark robes, and his short white hair made a close helmet above his brown face.

Urson's hand was on his sword. Snake stood with his feet wide, his hands out from his sides.

"Who are you?" the dark man declared.

"Who are you?" Urson parried.

"I am Hama Incarnate."

They were silent. Finally Geo said, "We are travelers in Aptor. We don't mean any harm."

As the man moved forward, splotches of light from the trees slipped across his robe. "Come with me," Hama said. He turned and proceeded among the trees. They followed.

They passed into the temple garden. It was early enough in the morning so that the sunlight lapped pink tongues over the giant black urns that sat along the edges of the path. Now they passed into the temple.

As they passed, Hama turned, looked at the jewels on Iimmi's and Geo's necks, and then looked up at the gazing eye of the statue at the end of the altar. He made no other sign, but turned again and continued. "The morning rites have not yet started," he said. "They will begin in a half an hour. By then I hope to have divined your purpose in coming here."

At the other side of the stairway they mounted a stairway, and then entered

a door above which was a black circle dotted with three eyes. Just as they were about to go in, Geo looked around, frowned, and caught Iimmi's eye. "Snake?" he mouthed.

Iimmi looked around and shrugged.

The man turned and faced them, apparently unaware of Snake's departure. As he closed the door, now, he said, "You have come to oppose the forces of Aptor, am I right? You come to steal the jewel of Hama. You have come to kidnap the Incarnate Argo. Is that not your purpose. Keep your hand off your sword, Urson! I can kill you in a moment. You are defenseless."

"Damn! I'm sleepy." She rolled over and cuddled the pillow. Then she opened her eyes, one at a time, and lay watching the nearly completed motor of metal bars and copper wire that sat on the table beside her bed. She stood up.

Then she collapsed on the bed and jammed her feet under the covers again. With thirty feet of one and a half inch brass pipe, she mused sleepily, I could carry heat from the main hot-water line under the floor which I would estimate to be about the proper surface area to keep these stones warm; let me see, thirty feet of one and a half inch pipe have a surface area of 22/7 times 3/2 times 30 which is 990 divided by 7 which is ... Then she caught herself. Damn, you're thinking this to avoid thinking about getting up. She opened her eyes once more, put feet on the stone, and held them there while she scratched vigorously at her uneven mop of red hair.

She looked at the clock. "Yikes!" she said softly, and ran out the door, and slammed it behind her—almost. She whirled around, caught it on her palms before it banged shut, and then closed it with gingerly care the final centimeter and a half of the arc. Are you trying to get caught? she asked herself as she tiptoed to the next door.

She opened it and looked in. Dunderhead looks cute when he's asleep, she thought. There was a cord on the floor that ran from under the table by the priest's bed, over the stones, carefully following the zigzag of the crevices between them, and at last the end lay in the corner of the door sill. You really couldn't see it if you weren't looking for it, which had more or less been the idea when she had put it there last night before the priests had come back from vespers. The far end was tied in a knot of her own invention to the electric plug

of his alarm clock. Dunderhead had an annoying habit of re-setting his clock every evening making sure that the red second hand was still sweeping away the minutes. (In her plans for this morning she had catalogued his every habitual action, and had observed this one for three nights running, hanging upside down from the bulky stone portcullis above and outside his window.)

Tugging on the string, she saw it leap from the crevices into a straight line and then lift from the floor as she drew it tauter, and then go slack as the plug blipped quietly onto the floor.

Next she pulled the string again until the slack left and raised her end a few inches from the floor. With her free hand now she gave the string a small twit and watched the vibration run up and down the string twice. The knot's invention was an ingenuous one. At the vibration, two opposed loops shook away from a third, and a four millimeter length of rubber band that had been sewn in tautened and released a fourth loop from around a small length of number four gauge wire with a holding tonsure of three quarters of a gram, and the opposing vibration returning up the thread loosed a similar apparatus on the other side of the plug. The knot fell away, and she wound it quickly around her hand. She stood up, closed the door, and the oiled lock was perfectly silent. The door knob was just the slightest bit greasy, she noted. Careless.

Back in her room, it was standing on the table. Sunlight from the high window fell red across the board. It was very early in the morning. She took the parts of the motor up in her hands. "I guess we try you out today? No?" She answered herself, "Yes." Finally she put the parts in the paper bag, strode out of the room, and slammed the ... whirled around and caught it once more. "Gnnnnnnn," she said. "Do you want to get caught?" For the second time she answered herself, "Yes. And remember that too. Or you'll never get through it."

As she walked down the hall, she heard through one of the windows the chirp of a blue lizard from the garden. "The sound I wanted to hear," she smiled to herself. "A good sign."

Turning into the temple, she started down the side aisle. The great black columns passed before her. Something moved between the columns along the other side, swift and indistinct as a bird's shadow. At least she thought she saw something. "Remember," she reminded herself, "you have guilt feelings about this whole thing, and you could very easily be manufacturing delusions to scare

yourself out of going through with it." She went on, passed two more columns, and saw it again. "Or," she went on with her monologue, "you could be purposefully ignoring the very obvious fact that there is somebody over there who is going to see you. So watch it." There were mirrors somewhere in the temple, but they weren't on the opposite wall, so she couldn't be seeing herself. In fact the mirrors were out in the vestibule through which she had come and maybe this other person had come, so maybe it was seeing her as a reflection of ... "Unscramble that syntax," she told herself. "You think like that and you'll never make it."

But there was somebody, with no clothes on (for all practical purposes) sneaking between the pillars. And he had four arms. That made her start to think of something else, but the thought as it arrowed into the past, suddenly got deflected, turned completely about, and jammed into her brain again, because he was staring directly at her.

If he starts walking toward me, she thought, *I'm going to be scared out of my ears. So I better start walking toward him. Besides, I want to see what he looks like.* She started out from the columns. Glancing quickly both ways, she saw that the temple was deserted save for them.

He's a kid, she thought, three quarters of the way across. *My age*, she added, and again a foreign thought attempted to intrude itself on her but never made it, because he was coming toward her now. At last he stopped before her, silent, muscles like tight wire under the brown skin, black hair massing low on his forehead, his eyes deep beneath the black shrub of brows.

She gulped and asked him, "What are you doing here? Do you know somebody could catch you in here and get mad as hell? I know I couldn't possibly have, but I think I've seen you before some place; if somebody comes along, they might even think you were trying to steal Hama's eye." *I shouldn't have said that*, she thought,*because he moved funny.* "You better get out of here because everybody will be up here in a half an hour for morning services."

At that news, he suddenly darted forward, passed her, and sprinted down toward the altar.

"Hey!" she called and ran after him.

Snake vaulted over the brass altar rail.

"Wait a minute," she called, catching up. "Wait, will you!"

Snake turned as she slung her leg across the brass bar. "Look, I realize I gave away my hand. But that was only guilt feelings. You gave yours away too, though. And if you don't think you've got guilt feelings, boy, you're crazy."

Snake frowned, tilted his head, and then grinned.

"So we'll help each other see," she said. "You want it too, don't you." She pointed up to the head of the statue towering above them. "So let's co-operate. I'll get it for a little while. Then you can have it." He was listening, she saw, so she guessed her strategy was working. *Play it by ear now*, she thought. "We'll help each other. Shake on it, huh?" She stuck out her hand.

All four hands reached forward.

Whoops, she thought, *I hope he's not offended.*

But the four hands grasped hers, and she added her second to the juncture. "All right," she said. "Come on. Now I had all this figured out last night. And we don't have much time. Let's go around ..." But he walked over to where the stalks of wheat spired from the altar base up through Hama's fist, and grabbed a stalk with the three hands, and hand, over hand, over hand, began to hoist himself up to where the first broad sheets of metal leaves leaned out to form a small platform. At first his dirty feet swung out frog-like, but then he caught the stem with his toes and at last hoisted himself to the front and looked down at her.

"I can't climb up there," she said, "I don't have your elevation power."

Snake looked down and shrugged.

"Oh damn," she said. "I'll do it my way." She ran across the altar to the great foot of the statue. Sitting cross-legged, Hama's foot was on his side. Using the ridges made by the toes as steps, she clammered up to the dark bulge of the deity's godlike bunion. She made her way across the ankle, up the slanting shin, back down the black thigh, until she stood at the crevice where the leg and torso met.

Out beyond the great knee, Snake regarded her from his perch in the groin of yellow leaf. They were about equal height.

"Yoo-hoo," she waved. "Meet you at the clavicle." Then she stuck her tongue out. The bulges in the belly of the god made a treacherous ledge along which she inched until she arrived at the cavernous naval, leaving wet handprints on the black stone.

The god's belly button from this intimate distance revealed itself as a circular door about five feet in diameter and controlled by a combination lock. She missed the first number twice, dried her hands off, and began again. According to the plans in the main safe of the temple (on which she had first practiced combination breaking) there was a ladder behind this door which led up into the statue. She remembered it clearly; and saved her life by doing so.

Because when she caught the second number, reversed the direction and felt the telltale click of the third, she pulled on the handle and was almost pushed from the ledge by the swinging circular door. She grabbed at a handle that she hardly saw on the door's inside, just as the stone slipped from beneath her feet. Then she was hanging five feet out in the air over the sacred groin some fifty feet below.

The first thing she tried, after closing her eyes and mumbling a few laws of motion, was to swing the door to. When she swung out, however, the door swung closed; and when she swung in, the door swung opened. After a while, she just hung. She gave small thanks that she had dried her hands. When her arms began to ache, she wished that she hadn't, because then it would be over by now. She went over what she knew about taking judo falls.

Then the door swung closed, and someone grabbed her around the waist. She didn't open her eyes, but felt her body pressed against the tilting stone. Her arms fell tingling to her sides. The ligaments flamed with pain. Then the pain dulled to throbbing, and she opened her eyes. "How the hell did you get down here?" she asked Snake. With his help she staggered through the open door and stopped to rub her arms. "How did you know about the ladder?"

They were standing in the shaft now, with the ladder beside them running up into the darkness.

He looked at her with a puzzled expression.

"What is it?" she asked. "Oh, I'll be able to climb up there, never you worry. Hey, can you speak?"

Snake shook his head.

"Oh," she said. Something started at the edge of her mind again, a picture of something unpleasant. Snake had started up the ladder, which he had come down so quickly a minute ago. She glanced out the door, saw that the temple was empty, pulled the door to, and followed.

They ascended into complete darkness. Her arms were beginning to ache again, just slightly. She reached up for the next rung, and found it in its proper place. Then the next. And then again the next.

She started counting steps now, and when seventy-four, seventy-five, and seventy-six dropped below her, there was a missing rung. She reached above it, but there was none. She ran her hand up the edge of the ladder and found that it suddenly curved into the wall. "Hey, you," she said in the darkness.

Something touched her waist. "Gnnnnnggggg," she said. "Don't *do* that." It touched her on the leg, took hold of her ankle, and pulled. "Watch out," she said.

It pulled again. She raised her foot, and it was tugged sideways a good foot and a half and set on solid flooring. Then a hand (her foot was not released) took her arm, and another held her waist, and tugged. She stiffened for one instant before she remembered the number of limbs her companion had. Then she came off the ladder, sideways into the dark, afraid to put her other foot down lest she step headlong into the seventy-five foot plus shaft.

But he tugged again, and in losing her balance, her foot came down on cool, solid stone. Holding her arm now, he led her along the tunnel. They passed into a steep incline. Now down the upper arm, she recalled.

"I feel like Eurydice," she said aloud.

You ... funny ... an echoing voice sounded in her skull.

"Hey," she said. "What was that?" But the voice was silent. The wall turned abruptly and the floor leveled out. They were in a section of the passage now that corresponded roughly to the statue's radial artery. At the wrist, there was a light. They mounted a stairway, came out a trap door, and found themselves standing high in the temple. Below them the great room spread, vastly deep, and still empty. Beside them, the stems of the bronze wheat stalks rose up through the fist and spired another fifty feet before breaking into clusters of golden grain and leaves. Across from them, over the dark curve of Gargantuan chest, in the statue's other hand, the shaft of the scythe leaned away into shadow.

"Look," she said. "You follow me now." She started back along the top of the forearm and then began the tedious climb over the rippling biceps, till at last they reached the broad shoulder. They walked across the hollow above the collar bone until they stood just below the great scooping shell of the ear.

She took the paper bag she had stuffed into her belt, tied one end of the string around the neck, and then, holding the other, she heaved the bag up and over the ear. She got the other end of the string, knotted it as high as she could reach, and gave it a tug. "I hope this works," she said. "I had it all figured out yesterday. The tensile strength of this stuff is about two hundred and fifty pounds, which ought to do for you and me." She planted her foot on the swell of the neck tendon, and in seven leaps she made it to the lobe of the ear. She swung around into the hollow, using the frontal wing as a pivot. Crouching in the hollow trumpet, she looked down at Snake. "Come up," she said. "Hurry up."

Snake joined her a moment later.

The ear was hollow, too. It led back into a cylindrical chamber which went up through the head of the god. The architect who had designed the statue had conveniently left the god's lid flipped. They climbed the ladder and emerged amid the tangle of pipes which represented the hair of the god. They made their way forward through the mass of pipes to where the forehead sloped dangerously forward. They could see the foreshortened nose and the rim of the statue's middle eye above that. There wasn't much of anything after that for the next thousand feet until the base of the altar. "Now you can really be some help," she told him. "Hold on to my wrist and let me down. I'll get the jewel."

They grabbed wrists, and Snake's three other hands, as well as the joints of his knees, locked around the base of five pipes that sprouted around them.

Slowly she slid forward, until her free hand slipped on the stone and she dropped the length of their two arms and swung just above the statue's nose. The eye opened in front of her. The lid arced above her, and the white of either side of the ebony iris shone faintly in the half darkness. At the center of the iris, in a small hollow, sitting on the top of a metal support, was the jewel.

She reached her free hand toward it as she swung.

From somewhere a gong suddenly sounded. Light flooded over her. Looking up, she saw white sockets of light shining down into her own eyes. Panicking, she almost released Snake's wrist. But a voice in her head (hers or someone else's, she couldn't tell) rang out. *Hold ... on ... damn ... it ...*

Then she grabbed the jewel. The metal shaft in which the jewel had stood was not steady, and tilted as her hand came away from it. The tilting must have

set off some clockwork mechanism, because the great eyelid was slowly lowering over the ivory and ebony eye. She swung again at the end of the rope of bone and flesh; half blinded by the lights above her, she looked over her shoulder, into the temple below. There was singing, the beginning of a processional hymn. The morning rites had started!

Light glinted on the stone limbs of the god. Figures were pouring into the temple. They must have seen her, but the hymn, sonorous and gigantic, rose like flood water, and she suddenly thought that if she fell, she would drown in the sound of it.

Snake was pulling her up. Stone against her arm, against her cheek. She clenched her other fist tightly at her side. Another hand came down and helped pull her. Then another. Then she was lying among the metal pipes, and he was loosening her fingers from his wrist. He tugged her to her feet, and for a moment she was looking out over the now filled temple.

Nervous energy contracted coldly along her body, and the sudden sight of the great drop filled her eyes and her head, and she staggered. Snake caught her and at last helped her back to the ladder. "We've got it," she said to him before they started down. She breathed deeply. Then she checked in her palm to see if it was still there; it was, and again she looked out over the people below. Light on the up-turned faces made them look like scattered pearls on the dark floor. An exaltation suddenly burst in her shoulders, flooded her legs and arms and for a moment washed the pain away. Snake, with one hand on her shoulder, was grinning also. "We've got it!" she said again.

They went down the ladder into the statue's skull. Snake preceded her out the hollow ear. He reached around, caught the cord, and let himself down to the shoulder.

She hesitated for a moment, then put the jewel in her mouth, and followed him. Standing beside him once more, she removed it, and then rubbed her shoulders. "Boy, am I going to have some Charley horse by tomorrow," she said. "Do me a favor and untie my bag for me?"

Snake untied the parcel from the end of the cord, and together now they climbed down the bicep and back over the forearm to the trap door in the wrist.

She glanced down at the faces of the worshipers just before they disappeared into the tunnel. Snake was taking the jewel from her hand. She let

him have it, and watched him raise it up above his head.

Immediately, when he raised the jewel, the pearls of faces went out like extinguished flames as heads bent all through the temple.

"That's the ticket," grinned Argo. "Come on." But Snake did not go into the tunnel. Instead he walked around the fist, took hold of one of the bronze wheat stems, and slid down through an opening between the thumb and forefinger. "That way?" asked Argo. "Oh well, I guess so. You know I'm going to write an epic about this."

But Snake had already gone. She followed him, clutching her feet around a great bunch of stems. He was waiting for her at the plateau of leaves, and nestled there, they gazed out once more at the fascinated congregation.

Again Snake held aloft the jewel, and again heads bowed. The hymn began to repeat itself, the individual words lost in the sonority of the hall. They started down the last length of stems now, coming quickly. When they stood at last on the base, she put her hand on his shoulder and looked across the brass altar rail. The congregation pressed close, although she did not recognize an individual face. Yet a mass of people stood there, enormous and familiar. As Snake started forward, holding up the jewel, the people fell back from the rail. Snake climbed over the altar rail, and then helped her over.

Her shoulders were beginning to hurt now, and the enormity of the theft ran chills up and down, up and down her spine. The black marble altar step as she put her foot down was awfully cold.

They started forward again, and the last note of the hymn echoed to silence, filling the hall with the roaring quiet of the hushed breathing of hundreds.

Simultaneously, both she and Snake got the urge to look back at the great diminishing height of Hama behind them. All three eyes were shut firmly now. A quiet composed of the rustling of a hundred dark robes upon another hundred hissed about them as they started forward again.

There was a spotlight on them, she suddenly realized. That was why the people, hovering back from the circular effulgence over the floor around them seemed so dim. Her heart had become a pulse at the bottom of her tongue. They kept on going forward, into the shadowed faces, into the parting sea of dark cloaks and hoods.

Then the last of the figures stepped aside from the temple door, and she

could see the sunlight out in the garden. They stood still for a moment, Snake holding high the jewel; then they burst forward, out through the door and down over the bright steps.

Instantly the hymn began again behind them, as if their departure had been a signal. The music flooded after them, and when they reached the bottom step, they both whirled, crouching like animals, expecting the congregation to come welling darkly out after them. But there was only the music, flowing into the light, washing around them, a transparent river, a sea.

"*Freeze the drop in the hand,and break the earth with singing.Hail the height of a man,and also the height of a woman.*"

Over the music came a brittle chirping from the trees. Fixed with fear, they watched the temple door as the hymn progressed. Then Snake suddenly stood up straight and grinned.

She scratched her red hair, shifted her weight, and looked at Snake. "I guess they're not coming," she said, sounding almost disappointed. Then she giggled. "Well, I guess we got it."

"Don't move," repeated Hama Incarnate.

"Now look—" began Urson.

"You are perfectly safe," the god continued, "unless you do anything foolish. You have shown great wisdom. Continue to show it. I have a lot to explain to you."

"Like what?" asked Geo.

"I'll start with the lizards," smiled the god.

"The what?" asked Iimmi.

"The singing lizards," said Hama. "You walked through a grove of trees just a few minutes ago. You had just been through a series of happenings that was probably the most frightening in your life. Suddenly you heard a singing in the trees. What was it?"

"I thought it was a bird," Iimmi said.

"But why a bird?" asked the god.

"Because that's what a bird sounds like," stated Urson impatiently. "Who needs an old lizard singing to them on a morning like this?"

"Your second point is much better than your first," said the god. "You do

not need a lizard, but you did need a bird. A bird means spring, life, good luck, cheerfulness. You think of a bird singing and you think of thoughts that men have been thinking for thousands upon thousands of years. Poets have written of it in every language, Catullus in Latin, Keats in English, Li Po in Chinese, Darnel X24 in New English. You expected a bird because after what you had been through, you needed to hear a bird. Lizards run from under wet rocks, scurry over gravestones. A lizard is not what you needed."

"So what do lizards have to do with why we're here?" demanded Urson.

"Why are you here?" repeated the god, subtly changing Urson's question. "There are many reasons, I am sure. You tell me some of them."

"You have done wrongs to Argo—at least to Argo of Leptar," Geo explained. "We have come to undo them. You have kidnaped the young Argo, as well as her mother apparently. We have come to take her back. You have misused the jewels. We have come to take the last one from you."

Hama smiled. "Only a poet could see the wisdom in such honesty. I thought I might have to wheedle to get that much out of you."

"I guess it was pretty certain that you knew that much already," Geo said.

"True," answered Hama. Then his tone changed. "Do you know how the jewels work?"

They shook their heads.

"They are basically very simple mechanical contrivances which are difficult in execution, but simple in concept. I will explain. Human thoughts, it was discovered after the Great Fire during the first glorious years of the City of New Hope, did not produce waves similar to radio waves, but the electrical synapse pattern, it was found, can be read by radio waves, in the same way a mine detector reads the existence of metal."

"Radio?" Geo said.

"That's right," Hama said. "Oh, I forgot, you don't know anything about that at all. Well, I can't go through the whole thing now. Suffice it to say that each of the jewels contains a carefully honed crystal which is constantly sending out beams which can read these thought patterns. Also the crystal acts like a magnifying glass or a mirror, and reflects and magnifies the energy from the brain into heat or light or any other kind of electromagnetic radiation—there I go again—so that you can send great bolts of heat with them, as you have seen

done.

"But the actual workings of them are not important. And their ability to send heat out is only their secondary power. Their primary importance is that they can be used to penetrate the mind. Now we come to the lizards."

"Wait a minute," Geo said. "Before we get to the lizards. Do you mean go into minds like Snake does?" Suddenly he remembered that the boy was not there.

But the god went on. "Like Snake," he said. "But different. Snake was born with the ability to transmute the brain patterns of his thoughts to others; in that he has a power something like the jewels, but nowhere as strong. But with the jewels, you can jam a person's thoughts...."

"Just go into his mind and stop him from thinking?" asked Iimmi.

"No," said the god. "Conscious thought is too powerful. Otherwise, you would stop thinking every time Snake spoke to you. It works another way. How many reasons does a man have for any single action?"

They looked at him uncomprehendingly.

"Why, for example, does a man pull his hand from a fire?"

"Because it hurts," said Urson. "Why else?"

"Yes, why else?" asked Hama.

"I think I see what you mean," said Iimmi. "He also pulls it out because he knows that outside the fire his hand isn't going to hurt. Like the bird, I mean the lizard. One reason we reacted like we did was because it sounded like a bird. The other reason was because we wanted to hear a bird just then. The man pulls his hand out because the fire hurts, and because he wants it not to hurt."

"In other words," Geo summarized, "there are at least two reasons for everything."

"Exactly," explained Hama. "And notice that one of these reasons is unconscious. But with the jewel, you can jam the unconscious reason; so that if a man has his hand in a fire, you can jam his unconscious reason of wanting it to stop hurting. Completely bewildered, and in no less pain, he will stand there until his wrist is a smoking nub."

Geo reached over and felt his severed arm.

"Dictators during the entire history of this planet have used similar techniques. By not letting the people of their country know what conditions

existed outside their boundaries, they could get the people to fight to stay in those conditions. It was the old adage, convince a slave that he's free, and he will fight to maintain his slavery. Why does a poet sing? Because he likes music; and because silence frightens him. Why does a thief steal? To get the goods from his victim; also to prove that his victim cannot get him."

"That's how Argo got Snake back," Geo said to Urson. "I see now. He was just thinking of running away, and she jammed his desire not to get caught; so he had nothing to direct him in which direction to run. So he ran where she told him, straight back to her."

"That's right," Hama said. "But something else was learned when these jewels were invented. Or rather a lesson which history should have taught us thousands of years ago was finally driven home. No man can wield absolute power over other men and still retain his own mind. For no matter how good his intentions are when he takes up the power, his alternate reason is that freedom, the freedom of the people and ultimately his own, terrifies him. Only a man afraid of freedom would want this power, would conceive of wielding it. And that fear of freedom will turn him into a slave of this power. For this reason, the jewels are evil. That is why we have summoned you to steal them from us."

"To steal them from you?" asked Geo. "Why couldn't you have simply destroyed them when you had them."

"We have already been infected," smiled the god. "We are a small band here on Aptor. To reach the state of organization, to collect the scattered scientific knowledge of the times before the Great Fire, was not easy. Too often the jewels have been used, and abused, and now we cannot destroy it. We would have to destroy ourselves first. We kidnaped Argo and left you the second jewel, hoping that you would come after the third and last one. Now you have come, and now the jewel is being stolen."

"Snake?" asked Geo.

"That's right," replied Hama.

"But I thought he was your spy," Geo said.

"That he is our spy is his unconscious reason for his actions," explained Hama. "He is aware only that he is working against the evil he has seen in Jordde. Spy is too harsh a word for him. Say, rather, little thief. He became a spy for us quite unwittingly when he was on the island as a child with Jordde. I

have explained something to you of how the mind works. We have machines that can duplicate what Snake does in a similar way that the jewels work. This is how the blind priestesses contacted Jordde and made him their spy. This is how we reached Snake. But he never saw us, never even really talked to us. It was mainly because of something he saw, something he saw when he first got here."

"Wait a minute," Iimmi said. "Jordde wanted to kill me, and did kill Whitey because of something we might have seen. I bet this was the same thing. Now, what was it?"

Hama smiled. "My telling you would do no good. Perhaps you can find out from Snake, or my daughter, Argo Incarnate."

"But what do we do now?" Geo interrupted. "Take the jewels back to Argo, I mean Argo on the ship? She's already used the jewels to control minds, at least Snake's, so that means she's infected, too."

"Once you guessed the reason for her infection," said Hama. "We have been watching you on our screens since you landed. Do you remember what the reason was?"

"Do you mean her being jealous of her sister?" Geo asked.

"Yes. On one side her motives were truly patriotic for Leptar. On the other hand they were selfish ones of power seeking. But without the selfish ones, she would have never gotten so far as she did. You must bring young Argo back and give the infection a chance to work itself out."

"But what about the jewels?" asked Geo. "All three of them will be together. Isn't that a huge temptation?"

"Someone must meet this temptation, and overcome it," said Hama. "You do not know how much danger they are in while they are here on Aptor. Even if the final danger is only delayed, that delay will make it safer to bring them to Leptar."

Suddenly Hama turned to the screens and pushed a switch to on position. The opaque glass was filled with a picture of the interior of the temple. On the huge statue, a spotlight was following two microscopic figures over the statue's shoulder. They were climbing over the statue's elbow.

Hama increased the size. It was two people, not bugs, climbing down the gigantic sculptured figure. They made their way along the statue's forearm now,

to the golden stalks of wheat in the god's black fist. One, and then the other began to shimmy down the stems. They arrived at the base and climbed over the rail. The screen enlarged again.

"It's Snake," said Geo.

"And he's got the jewel," Urson added.

"That's Argo with him," Iimmi put in. "I mean—one of the Argos." They clustered around the screen, watching the congregation give way before the two fearful children. The red-haired girl in the short white tunic was holding onto Snake's shoulder.

Suddenly Hama turned the picture off, and they looked away from the screen now, puzzled. "So you see," said the god, "the jewel has already been stolen. For the sake of Argo, and of Hama, carry the jewels back to Leptar. Young Argo will help you. Though her mother and I are pained to see her go, she is as prepared for the journey as you are, if not more. Will you do it?"

"I will," Iimmi said.

"Me too," said Geo.

"I guess so," Urson said.

"Good," smiled Hama. "Then come with me." He turned from the screen and walked through the door. They followed him down the long stairway, past the stone walls, into the hall, and along the back of the church. He walked slowly, and smiled like a man who had waited long for something finally arrived. They turned out of the temple and descended the bright steps.

"I wonder where the kids are?" Urson asked.

But Hama led them on, across the broad garden to where the great black urns sat in a row close to a wall of shrubbery. A woman—old Argo—suddenly joined them. She had apparently been waiting for them. She gave them a silent smile of recognition, and they continued across the garden path.

Light fell through the shrubbery across her white tunic and Snake's bare back as they crouched over the contraption of coils and metal. She twisted two pieces of wire together in a final connection as Snake placed the jewel on an improvised thermocouple. Then they bent over it and both concentrated their thoughts on the bead. The thermocouple glowed red, and electricity jumped in the copper veins, turning the metal bone into a magnet. The armature tugged

once around its pivot, and then tugged around once more. Finally it was whipping around steadily, the brushes on its shaft reversing the magnetic poles with each half circle of the arc. It gained speed until it whirred into an invisible copper haze between them. "Hey," she breathed, "look at it go, will you! Just look at it go." And the young thieves crouched over the humming motor, oblivious to the eyes of the elder gods that smiled at them from the edge of the green shift of shadow and sunlight, by the side of the marble urn.

CHAPTER XI

Under the trees, she raised up on tiptoe and kissed the balding forehead of a tall, dark-robed priest. "Dunderhead," she said, "I think you're cute." Then she blinked very rapidly and knuckled beneath her eye. "Oh," she added, remembering, "I was making yogurt in the biology laboratory yesterday. There's two gallons of it fermenting under the tarantula cage. Remember to take it out. And take care of the hamsters. Please don't forget the hamsters."

Finally, they started once more around the slope of the volcano, and the temple and grove fell black and green away behind them.

"Two days to get to the ship," said Geo, squinting at the pale sky.

"Perhaps we had better put the jewels together," said Urson. "Keep them out of harm's way, since we know their power."

"What do you mean?" Iimmi asked.

Urson took Geo's leather purse from his belt. Then he took the jewel from Geo's neck and dropped it in the purse. Then he held the purse out for Iimmi to do the same.

"I guess it can't hurt," Iimmi said, dropping his chain into the pouch.

"Here's mine too," Argo said. Urson pulled the purse string closed and tucked the pouch in at his waist.

"Well," said Geo, "I guess we head for the river, so we can get back to your sister and Jordde."

"Jordde?" asked Argo. "Who's he?"

"He's a spy for the blind priestesses. He's also the one who cut Snake's tongue out."

"Cut his—?" Suddenly she stopped. "That's right: four arms, his tongue—I remember now, in the film!"

"In the what?" asked Iimmi. "What do you remember?"

Argo turned to Snake. "I remember where I saw you before!"

"You know Snake?" Urson asked.

"No, I never met him. But about a month ago I saw a movie of what happened. It was horrible what they did to him."

"What's a movie?" asked Iimmi.

"Huh?" said Argo. "Oh, it's sort of like the vision screens, only you can see things that happened in the past. Anyway, Dunderhead showed me this film about a month ago. Then he took me down to the beach and said I should have seen something there, because of what I'd learned."

"See something?" Iimmi almost yelled. "What was it?" He took her shoulder and shook it. "What was it you were supposed to see?"

"Why...?" began the girl, startled.

"Because a friend of mine was murdered and I almost was too because of something we saw on that beach. Only I don't know what it was."

"But ..." began Argo. "But I don't either. I couldn't see it, so Dunderhead took me back to the temple."

"Snake?" Geo asked. "Do you know what they were supposed to see? Or why Argo was taken to see it after she was shown what happened to you?"

The boy shrugged.

Iimmi turned on Snake. "Do you know, or are you just not telling? Come on now. That's the only reason I stuck with this so far, and I want to know what's going on!"

Snake shook his head.

"I want to know why I was nearly killed," shouted the Negro. "You know and I want you to tell me!" Iimmi raised his hand.

Snake screamed. The sound tore over the distended vocal cords. Then he whirled and ran.

Urson caught him and brought the boy crashing down among leaves. "No you don't," the giant growled. "You're not going to get away from me this time. You won't get away from me again."

"Watch it," said Argo. "You're hurting him. Urson, let go!"

"Hey, ease up," said Iimmi. "Snake, I'm sorry. I didn't mean to yell. But I do want you to tell me. Very much."

Urson let the boy up, still mumbling, "Well, he's not going to get away again."

"When did he get away from you the first time?" Geo said, coming over to the boy. "Let him go. Look, Snake, do you know what there was about the beach that was so important?"

Snake nodded.

"Can you tell?"

Now the boy shook his head and glanced at Urson.

"You don't have to be afraid of him," Geo said, puzzled. "Urson won't hurt you."

But Snake shook his head again.

"Well," said Geo, "we can't make you. Let's get going."

"I bet I could make him," the giant mumbled.

"No," said Argo. "I don't think you could. I watched the last time somebody tried. And I don't think you could."

Late morning flopped over hotly in the sky and turned into afternoon. The jungle became damp, and bright insects plunged like tiny knives of blue or scarlet through leaves. Wet foliage brushed against their chests, faces, and shoulders.

"Why would they show you a film of something awful before taking you to the beach." Iimmi asked.

"Maybe it was supposed to have made me more receptive to what we saw," said Argo.

"If horror makes you receptive to what ever it was," said Iimmi, "I should have been about as receptive as possible."

"What do you mean?" asked Geo.

"I just watched ten guys get hacked to pieces all over the sand, remember?"

They walked silently for a time.

"We'll come out at the head of the river. It's a huge marsh that drains off into the main channel," said Argo presently.

Late afternoon darkened quickly.

"I was wondering about something," Geo said, after a little while.

"What?" asked Argo.

"Hama said that once the jewels had been used to control minds, the person

who used them was infected—"

"Rather the infection was already there," corrected Argo. "That just brought it out."

"Yes," said Geo. "Anyway, Hama also said that he was infected. When did he have to use the jewels?"

"Lots of times," Argo said. "Too many. The last time was when I was kidnaped. He used the jewel to control pieces of that thing you all killed in the City of New Hope to come and kidnap me and then leave the jewel in Leptar."

"A piece of that monster?" Geo exclaimed. "No wonder it decayed so rapidly when it was killed."

"Huh?" asked Iimmi.

"Argo, I mean your sister, told me they had managed to kill one of the kidnapers, and it melted the moment it died."

"We couldn't control the whole mass," she explained. "It really doesn't have a mind. But, like everything alive, it has, or had, the double impulse."

"But what did kidnaping you accomplish, anyway?" Iimmi asked.

Argo grinned. "It brought you here. And now you're taking the jewels away."

"Is that all?" asked Iimmi.

"Well," said Argo, "Isn't that enough?" She paused for an instant. "You know I wrote a poem about all this once, the double impulse and everything."

Geo recited:

"*By the dark chamber sits its twin,where the body's floods begin,and the two are twinned again,turning out and turning in.*"

"How did you know?" she asked.

"The dark chamber is Hama's temple," Geo said. "Am I right?"

"And it's twin is Argo's," she went on. "They should be twins, really. And then the twins again are the children. The force of age in each one opposed to the young force. See?"

"I see," Geo smiled. "And the body's floods, turning in and out?"

"That's sort of everything man does, his going and coming, his great ideas, his achievements, his little ideas too. It all comes from the interplay of those four forces."

"Four?" said Urson. "I thought it was just two."

"But it's thousands," Argo explained.

The air was drenching. The leaves had been shiny before. Now they dripped water on the loose ground. Pale light lapsed through the branches, shimmered, reflected from leaf to the wet underside of leaf. The ground became mud.

Twice they heard a sloshing a few feet away, and then the scuttling of an unseen animal. "I hope I don't step on something that decides to take a chunk out of my foot."

"I'm pretty good at first aid," Argo said. "It's getting chilly," she added.

Just then Geo slipped and sank knee-deep in a muddy pool. Urson raced to the edge of the quicksand bog and grabbed Geo by his good arm. He pulled till Geo emerged, coated to the thigh with gray mud.

"You all right?" Urson asked. "You sure you're all right?"

Geo nodded, rubbing the stump of his arm with his good hand. "I'm all right," he said. The trees had almost completely given out. Geo suddenly saw the whole swamp sinking in front of him. He splashed a step backwards, but Urson caught his shoulder. The swamp wasn't sinking, though. But ripples had begun to appear over the water, spreading, crossing, webbing the whole surface with a net of tiny waves.

Then they began to rise up. Green backs broke the surface, wet and slippery. They were standing now, torrents cascading their green faces, green chests. Three of them, now a fourth. Four more, and then more, and then many more. They stood, now, these naked, green, mottled bodies.

Geo felt a sudden tugging in his head, at his mind. Looking around he saw that the others felt it too.

"Them ..." Urson started.

"They're the ones who carried us ..." Geo began. The tug came again, and they stepped forward.

Iimmi put his hand on his head. "They want us to go with them...." And suddenly they were going forward, slipping into the familiar state of half-consciousness which had come when they had crossed the river, to the City of New Hope, or when they had first fallen into the sea.

Wet hands fell on their bodies as they were guided through the swamp. They were being carried through deeper water. Now they were walking over dry land where the vegetation was thicker, and slimy boulders caught shards of

sunset on their wet flanks, blood leaking on the gray, the wet gray, and the green.

Through a rip in the arras of vegetation, they saw the moon push through the clouds, staining them silver. A rock rose in silhouette against the moon. On the rock a naked man stood, staring at the white disk. White highlighted one side of his body. As they passed, he howled (or anyway, opened his mouth and threw his head back. But their ears were full of night and could not hear.) and dropped to all fours. A breeze blew momentarily in the sudden plume of his tail, in the scraggly hair of the under-belly, and light lay white on the points of his ears, his lengthened muzzle, his thinned hind legs. The animal turned its head once, and then scampered down the rock and into the darkness as a curtain of trees swung across the opened sky.

Eyes of flame whipped ahead of them as water swirled their knees once more. Then the water went down and sand washed back under the soles of their feet on the dark beach. The beating of the sea, the rush of the river, and the odor of the wet leaves that fingered their cheeks, prodded their shins, and slapped against their bellies as they moved forward, all this fell away. Red eyes wavered into flaming tongues, and the tongues showed themselves housed in the mouths of a dozen caves.

Light flickered on the wet rocks and they entered the largest one. Their eyes suddenly focused once more. Foam washed back and forth over the sand floor, and black chains of weeds, caught in crevices on the rock, lengthened over the sand with the inrush of water. Webbed hands released them.

Brown rocks rose around in the firelight. They raised their eyes to where the Old One sat. The long spines were strung with shrunken membrane. His eyes, gray and indistinct, were close to the surface of his broad nostriled face. A film of water trickled over the rock where he sat. Others stood about him, on various levels of the rock.

The tugging left them, and they glanced at one another now. Outside the cave it was raining hard. Geo saw that Argo's hair had wet to dark auburn and hugged her head now, making little streaks down her neck.

Suddenly a voice boomed at them, like an echo, more than the reverberation that the cave would give. "Carriers of the jewels," it began, and suddenly Geo realized that it was the same hollowness that accompanied Snake's soundless

messages. "We have brought you here to give a warning. We are the oldest forms of intelligence on this planet," continued the Old One from the throne. "We have watched from the delta of the Nile the rise of the pyramids; we have seen the murder of Caesar from the banks of the Tiber. We watched the Spanish Armada destroyed by English, and we followed Man's great metal fish through the ocean before the Great Fire. We have never aligned ourselves with either Argo or Hama, but rise in the sexless swell of the ocean. We can warn you, as we have warned man before. As before, some will listen, some will not. Your minds are your own, now. That I pledge you. Now, I warn you; cast the jewels into the sea.

"Nothing is ever lost in the sea, and when the evil has been washed from them with time and brine, they will be returned to man. For then time and brine will have washed away his imperfections also.

"No living intelligence is free from their infection, nothing with the double impulse of life. But we are old, and can hold them for a million years before we will be so infected as you are. Your young race is too condensed in its living to tolerate such power at its fingers now. Again I say: cast these into the sea.

"The knowledge which man needs to alleviate hunger and pain from the world of men is contained in two monasteries on this island. Both have the science to put the jewels to use, to the good use which is possible with them. Both have been infected. In Leptar, however, where you carry these jewels, there is no way at all to utilize them for anything but evil. There will only be the temptation to destroy."

"What about me?" Argo suddenly piped up. "I can teach them all sorts of things in Leptar." She took one of Snake's hands. "We used one for our motor."

"You will find something else to make your motor turn," came the voice. "You still have to see something that you have not yet seen?"

"At the beach?" demanded Iimmi.

"Yes," nodded the Old One, with something like a sigh, "at the beach. We have a science that allows us to do things which to you seem impossibilities, as when we carried you in the sea for weeks without your body decaying. We can enter your mind as Snake does. And we can do much else. We have a wisdom which far surpasses even Argo's and Hama's on Aptor. Will you then cast the jewels into the sea and trust them with us?"

Here Urson interrupted. "How can we give you the jewels?" he said. "How can we be sure you're not going to use them against Argo and Hama once you get them. You say nobody is impervious to them. And we've only got your say so on how long it would take you to fall victim. You can already influence minds. That's how you got us here. And according to Hama, that's what corrupts. And you've already done it."

"Besides," Geo said. "There's something else. We've nearly messed this thing up a dozen times trying to figure out motives and counter motives. And it always comes back to the same thing: we've got a job to do, and we ought to do it. We're suppose to return Argo and the jewels to the ship, and that's what we're doing."

"He's right," said Iimmi. "It's the general rule again. Act on the simplest theory that holds all the information."

The Old One sighed again. "Once, fifteen hundred years ago, a man who was to maneuver one of the metal birds walked and pondered by the sea. He had been given a job to do. We tried to warn him, as we tried to warn you. But he jammed his hands into the pockets of his khaki uniform, and uttered to the waves the words you just uttered, and the warning was shut out of his mind. He scrambled up over the dunes on the beach, never taking his hands out of his pockets. The next morning, at five o'clock, when the sun slanted red across the air field, he climbed into his metal bird, took off, flew for some time over the sea, looking down on the water like crinkled foil under the heightening sun, until he reached land again. Then he did his job: he pressed a button which released two shards of fire metal in a housing of cobalt. The land flamed. The sea boiled in the harbors. And two weeks later he was also dead. That which burned your arm away, poet, burned away his whole face, boiled his lungs in his chest and his brain in his skull."

There was a pause. And then, "Yes, we can control minds. We could have relieved the tiredness, immobilized the fear, the terror, immobilized all his unconscious reasons for doing what he did, just as man can now do with the jewels. But had we, we would have also immobilized the—the honor which he clung to. Yes, we can control minds, but we do not." Now the voice swelled. "But never, since that day on the shore before the Great Fire, has the temptation to do so been as great as now." Again the voice returned to normal. "Perhaps,"

and there was almost humor in it now, "the temptation is too great, even for us. Perhaps we have reached the place where the jewels would push us just across the line where we have never before gone, make us do those things that we have never done. You have heard our warning now. The choice, I swear to you, is yours."

They stood silent in the high cave, the fire on their faces weaving brightness and shadow. Geo turned to look at the rain-blurred darkness outside the cave's entrance.

"Out there is the sea," said the voice again. "Your decision quickly. The tide is coming in...."

It was snatched from their minds before they could articulate it. Two children saw a bright motor turning in the shadow. Geo and Iimmi saw the temples of Argo in Leptar. Then there was something darker. And for a moment, they all saw all the pictures at once.

A wave splashed across the floor, like twisted glass before the rock on which the fire stood. Then it flopped wetly across the burning driftwood which hissed into darkness. Charred sticks turned, glowing in the water, and were extinguished.

Rain was buffeting them; hands held them once more, pulling them into the warm sea, the darkness, and then nothing....

Snake was thinking again, and this time through the captain's eyes.

The cabin door burst open in the rain. Wind whipped her wet veils about her in the door as lightning made them transparent, blackening her body's outline. Jordde rose from his seat. She closed the door on thunder.

"I have received the signal from the sea," she said. "Tomorrow you pilot the ship into the estuary."

The captain's voice: "But Priestess Argo, I cannot take the ship into Aptor. We already have lost ten men; I cannot sacrifice ..."

"And the storm," smiled Jordde. "If it is like this tomorrow, how can I take her through the rocks?"

Her nostrils flared as her lips compressed to a chalky line. She was regarding Jordde.

The captain's thoughts: What is between them, this confused tension. It upsets me deeply, and I am tired.

"You will pilot the boat to shore tomorrow," Argo nearly hissed. "They have returned, with the jewels!"

The captain's thoughts: They speak to each other in a code I don't understand. I am so tired, now. I have to protect my ship, my men, that is my job, my responsibility.

But Argo turned to the captain. "I hired you to obey me. I order you to pilot this ship to Aptor's shore tomorrow morning."

The captain's thoughts; Yes, yes. The fatigue and the unknowing. But I must fulfill, must complete. "Jordde," he began.

"Yes, captain," answered the mate, anticipating. "If the weather is permitting, sir, I will take the ship as close as I can get." He smiled now, a thin curve over his face, and turned toward Argo.

CHAPTER XII

Roughness of sand beneath one of his sides, and the flare of the sun on the other. His eyes were hot and his lids were orange over them. He turned over, and reached out to dig his fingers into the sand. Only one hand closed; then he remembered. Opening his eyes, he rolled to his knees. The sand grated under his knee caps. Looking out toward the water, he saw that the sun hung only seeming inches above the horizon. Then he saw the ship.

From its course, he gathered it was heading toward the estuary of the river down the beach. He began to run toward where the rocks and vegetation cut off the end of the beach. The sand under his feet was cool.

A moment later he saw Iimmi's dark figure come from the jungle. He was heading for the same place. Geo hailed him, and panting, they joined each other. Then, together they continued toward the rocks.

As they broke through the first sheet of foliage, they bumped into the red-haired girl who stood, knuckling her eyes in the shadow of the broad palm fronds. When she recognized them, she joined them silently. Finally they reached the outcropping of rock a few hundred feet up the river bank.

The rain had swelled the river's mouth to tremendous violence. It vomited surges of brown water into the ocean, frothed against rocks, and boiled opaquely below them. It was nearly half again as wide as Geo remembered it.

Although the sky was clear, beyond the brown bile of the river, the sea

snarled viciously and bared white teeth in the sun. It took another fifteen minutes for the boat to maneuver through the granite spikes toward the rocky embankment a hundred yards away.

Glancing down into the turbulence, Argo breathed, "Gee." But that was the only human sound against the water's roaring.

The boat's prow doffed in the swell, and then at last her plank swung out and bumped unsteadily on the rocky bank. Figures were gathering on deck.

"Hey," Argo said, pointing toward one. "That's Sis!"

"Where the hell are Snake and Urson?" Iimmi asked.

"That's Snake down there," Geo said. "Look!" He pointed with his nub.

They could see Snake crouched near the gangplank itself. He was behind a ledge of rock, invisible to the people on the ship, apparently, but plain to Geo and his companions.

"Watch it," Geo said. "I'm going down there. You stay here." He ducked off through the vines, keeping in sight of the rocks' edge and the boiling foam. The ship grew before him, and at last he reached a sheltered rise, just ten feet above the nest of rock in which the four-armed boy was crouching.

Geo looked out at the boat. Jordde stood at the head of the gangplank. The eighteen feet of board was unsteady with the roll of the ship. Jordde held something like a black whip in his hand, only the end went to a box-like contraption strapped to his back. With the lash raised, he stepped onto the shifting plank.

Geo wondered what the whip contrivance was. The answer came with the hollow sound of Snake's thoughts. *That ... is ... machine ... he ... use ... to ... cut ... tongue ... with ... only ... on ... whip ... now ... not ... wire ...* So Snake knew he was just behind him. As he was trying to figure exactly the implications of what Snake had said, suddenly, with the speed of a bird's shadow, Snake leaped from his hiding place and landed on the shore end of the plank. He recovered from his crouch, and rushed down the plank toward Jordde, apparently intending to knock him from the board.

Jordde raised the lash and it fell across the boy's shoulder. It didn't land hard; it just dropped. But Snake suddenly reeled, and went down on one knee, grabbing the sides of the plank. Geo was close enough to hear the boy scream.

"I cut your tongue out once with this thing," Jordde said, matter of factly.

"Now I'm going to cut the rest of you to pieces." He adjusted a control at his belt and raised the lash again.

Geo leapt for the plank. He faced Jordde over the crouching boy, he wondered how wise it had been. Then he had to stop wondering and try to duck the falling lash. He couldn't.

It landed with only the weight of gravity, brushing his cheek, then dropping across his shoulder and down his back. He screamed; the whole side of his face seemed seared away, and an inch crevice burned into his shoulder and back the length it touched him. He bit into white fire, trying not to leap aside into the foaming chasm between rocks and boat. As the lash rasped over his shoulder, sweat flooded his eyes. His good arm, which held the edge of the plank, was shaking like a plucked string on a loose guitar. Snake lunged back against him, almost knocking him over. When Geo blinked the tears out of his eyes, he saw two bright welts over Snake's shoulder. He also saw that Jordde had stepped out upon the plank and was smiling.

When the line fell again, he wasn't sure just what happened. He leaned in one direction, and suddenly Snake was a dive of legs in the other. Now Snake was just four sets of fingers on the edge of the plank. Geo screamed again and shook.

Two sets of fingers disappeared from one side of the board and reappeared on the other. As Jordde raised the lash a fourth time to rid the plank of this last one-armed nuisance, the fingers worked rapidly forward toward Jordde's feet, until suddenly an arm raised from beneath the plank, grabbed Jordde's foot, and tugged. The lash fell far from Geo who was still trembling, trying to move backwards off the unsteady plank, and keep from vomiting at the same time.

Jordde tripped, but turned in time to grab the edge of the ship's gate and steady himself. At the same time, one leg, and then another, came up the other side of the plank, and then Snake rolled to a crouching position on the board's top.

Geo got his feet under him now, and stumbled backwards, off the plank, and then sat down hard a few feet back on the rocks. He clutched his good arm across his stomach, and without lowering his eyes, leaned forward to cool his back.

Jordde, half-seated on the board now, lashed the whip sideways. Snake

leaped a foot from the plank as the line swung beneath his feet. All four arms went spidering out to regain equilibrium. The whip struck the side of the boat, left a burn along the hull, and came swinging back again. Snake leapt once more and made it.

Suddenly there was a shadow over him, and Geo saw Urson stride up to the end of the plank. His back to Geo, he crouched bear-like at the plank's head. "All right, now try someone a little bigger than you. Come on, kid, get off there. I want my turn." Urson's sword was drawn.

Snake turned, grabbed at something on Urson, but the big man knocked him away as he leapt diagonally onto the shore. Urson laughed over his shoulder. "You don't want the ones around my neck," he called back. "Here, keep these for me." He tossed the leather purse from his belt back to the shore. Snake landed just as Jordde flung the lash out again. Urson must have caught the line across his chest, because they saw his back suddenly stiffen. Then he leapt forward and came down with his sword so hard that had Jordde still been there, his leg would have come off. Jordde leapt back onto the edge of the ship, and the sword sliced three inches into the plank. As Urson tried to pull the blade out once more, Jordde sent his whip singing again. It wrapped Urson's mid-section like a black serpent, and it didn't come loose.

Urson howled. He flung his sword forward, which probably only by accident thwunked seventeen inches through Jordde's abdomen. He bent forward, grabbed the line with both hands, and tugged backwards, screaming.

Jordde took two steps onto the plank, his mouth open, his eyes closed, and fell over the side.

Urson heaved backwards, and toppled from the other side. For a moment they hung with the whip between them over the board. The ship heaved, rolled to. The plank swiveled, came loose; and with the board on top of them, they crashed into the water.

Geo and Snake were at the rocks' edge. Iimmi and Argo were coming up behind them.

Below them, limbs and board bobbed through the foam once. The line had somehow looped around Urson's neck, and the plank had turned up almost on end. Then they went under again.

With nothing between it and the rock wall of shore, the boat began to roll

in. With each swell, it came in six feet, and then leaned out three. Then it came back another six. It took four swells, the time of four very deep breaths, until the side of the boat was grating up against the rocks. Geo could hear the plank splintering down in the water. But the sound of the water blanketed anything else that was breaking down there.

Geo took two steps backwards, clutched at his stubbed arm, and threw up.

Somebody, the captain, was calling, "Get her away from the rocks. Away from the rocks, before she goes to pieces!"

Iimmi took Geo's arm. "Come on, boy," he said, and managed to haul him onto the ship. Argo and Snake leapt on behind them, as the boat floundered away from the shore.

Geo leaned against the rail. Below him the water turned on itself in the rocks, thrashed along the river's side, and then, as he raised his eyes, stretched out along the bright blade of the beach. The long sand that rimmed the island dropped away from them, a stately and austere arc gathering in its curve all the sun's glare, and throwing it back on wave, and on wave. His back hurt, his stomach was shriveled and shaken like an old man's palsied fist, his arm was gone, and Urson....

And then Argo said, "Look at the beach!"

Geo flung his eyes up and tried in one moment to envelop whatever he saw, whatever it would be. Beneath the roar was a tide of quiet. The sand along the naked crescent was dull at depressions, mirror bright at rises. At the jungle's edge, leaves and fronds sped multi-textured rippling along the foliage. Each single fragment in that green carpet hung up in the sun was one leaf, he reflected, with two sides, and an entire system of skeleton and veins, as his hand and arm had been. And maybe one day would drop off, too. He looked from rock to rock now. Each was different, shaped and lined distinctly, but losing detail as the ship floated out, as the memory of his entire adventure was losing detail. That one there was like a bull's head half submerged; those two flat ones together on the sand looked like the stretched wings of eagles. The waves, measured and magnificent, followed one another onto the sand, like the varying, never duplicated rhythm of a good poem, peaceful, ordered, and calm. He tried to pour the chaos of Urson drowning from his mind onto the water. It flowed into each glass-green wave's trough in which it rode, suddenly quiet, up

to the beach. He spread the pain in his own body over the web of foam and green shimmering, and was surprised because it fit easily, hung there well, quieted, very much quieted. Somewhere at the foot of his brain, an understanding was beginning to effloresce with the sea's water, under the sun.

Geo turned away from the rail, and with the wet deck slipping under his bare feet, he walked toward the forecastle. He released his broken limb, and his hand hung at his side.

When Snake came down that evening, Geo was lying on his back in the bunk, following the grain of the wood on the bottom of the bed above his. He had his good arm behind his neck now. Snake touched his shoulder.

"What is it?" Geo asked, turning on his side and sitting out from under the bunk.

Snake held out the leather purse to Geo.

"Huh?" Geo asked. "Didn't you give them to Argo yet?"

Snake nodded.

"Well, why didn't she take them. Look, I don't want to see them again."

Snake pushed the purse toward him again, and added, *Look ...*

Geo took the purse, opened the draw string, and turned the contents out in his hand: there were three chains, on each of which was a gold coin fastened by a hole near the edge. Geo frowned. "How come these are in here?" he asked. "I thought—where are the jewels?"

In ... ocean, Snake said. *Urson ... switched ... them.*

"What are you talking about?" demanded Geo. "What is it?"

Don't ... want ... tell ... you ...

"I don't care what you want, you little thief." Geo grabbed him by the shoulder. "Tell me!"

Know ... from ... back ... with ... blind ... priestesses, Snake explained rapidly. *He ... ask ... me ... how ... to ... use ... jewels.. when ... you ... and ... Iimmi ... exploring ... and ... after ... that ... no ... listen ... to ... thoughts ... bad ... thoughts ... bad ...*

"But he—" Geo started. "He saved your life!"

But ... what ... is ... reason, Snake said. *At ... end ...*

"You saw his thoughts at the end?" asked Geo. "What did he think?"

You ... sleep ... please, Snake said. *Lot ... of ... hate ... lot ... of ... bad ... hate* ... There was a pause in the voice in his head ... *and ... love ...*

Geo began to cry. A bubble of sound in the back of his throat burst, and he turned onto the pillow and tried to bite through the sound with his teeth, the tiredness, the fear, for Urson, for his arm, and the change which hurt. His whole body ached, his back hurt in two sharp lines, and he couldn't stop crying.

Iimmi, who had now decided to take the bunk above Geo, came back a few minutes after mess. Geo had just awakened.

Geo laughed. "I found out what it was we saw on the beach that made us so dangerous."

"How?" asked Iimmi. "When? What was it?"

"Same time you did," Geo said. "I just looked. And then Snake explained the details of it to me later."

"When?" Iimmi repeated.

"I just took a nap, and he went through the whole thing with me."

"Then what was it you saw, we saw?"

"Well, first of all; do you remember what Jordde was before he was shipwrecked on Aptor?"

"Didn't Argo say he was studying to be a priest. Old Argo, I mean."

"Right," said Geo. "Now, do you remember what my theory was about what we saw?"

"Did you have a theory?" Iimmi asked.

"About horror and pain making you receptive to whatever it was."

"Oh, that," Iimmi said. "I remember. Yes."

"I was also right about that. Now add to all this some theory from Hama's lecture on the double impulse of life. It wasn't a thing we saw, it was a situation, or rather an experience we had. Also, it didn't have to be on the beach. It could have happened anywhere. Man, and his constantly diametric motivations, is always trying to reconcile opposites. In fact, you can say that an action *is* a reconciliation of the duality of his motivation. Now, take all that we've been through, the confusion, the pain, the disorder; then reconcile that with the great order obvious in something like the sea, with its rhythm, its tides and waves, its overpowering calm, or the ordering of cells in a leaf, or a constellation of stars.

If you can do it, something happens to you: you grow. You become a bigger person, able to understand, or reconcile, more."

"All right," said Iimmi.

"And that's what we saw, or the experience we had when we looked at the beach from the ship this morning; chaos caught in order, the order defining chaos."

"All right again," Iimmi said. "And I'll even assume that Jordde knew that the two impulses of this experience were one—something terrible and confused, like seeing ten men hacked to pieces by vampires, or seeing a film of a little boy getting his tongue pulled out, or coming through what we came through since we landed on Aptor; and two—something calm and ordered, like the beach and the sea. Now, why would he want to kill someone simply because they might have gone through what amounts, I guess, to the basic religious experience?"

"You picked just the right word," Geo smiled. "Now, Jordde was a novice in the not too liberal religion of Argo. Jordde and Snake had been through nearly as much on Aptor as we had. And they survived. And they also emerged from that jungle of horror onto that great arcing rhythm of waves and sand. And they went through just what you and I and Argo went through. Little Argo, I mean. And it was just at that point when the blind priestesses of Argo made contact with Jordde. They did so by means of those vision screens we saw them with, which can receive sound and pictures from just about any place, but can also project, at least sound, to just about anywhere too. In other words, right in the middle of this religious, or mystic, or whatever you want to call it, experience, a voice materialized out of thin air that claimed to the voice of The Goddess. Have you any idea what this did to his mind?"

"I imagine it took all the real significance out of the whole thing," Iimmi said. "It would for me."

"It did," said Geo. "Jordde wasn't what you'd call stable before that. If anything, this made him more so. It also stopped his mental functioning from working in the normal way. And Snake who was reading his mind at the time, suddenly saw himself watching the terrifying sealing up process of an active and competent, if not healthy, mind. He saw it again in Urson. It's apparently a pretty stiff thing to watch. That's why he stopped reading Urson's thoughts. The idea of stealing the jewels for himself was slowly eating away Urson's balance,

the understanding, the ability to reconcile disparities, like the incident with the blue lizard, things like that, all of which were signs we didn't get. Snake contacted Hama by telepathy, almost accidentally. And Hama was something to hold onto for the boy."

"Still, why did Jordde want to kill anybody who had experienced this, voice of God and all?"

"Because Jordde had by now managed to do what a static mind always does. The situation, the beach, the whole thing suddenly meant for him the revelation of a concrete God. Now, he knew that Snake had contacted something also, something which the blind priestesses told him was thoroughly evil, an enemy, a devil. On the raft, on the boat, he religiously tried to 'convert' Snake, till at last, in evangelical fury, he cut the boy's tongue out with the electric generator and the hot wire which the blind priestesses had given him before he left. Why did he want to get rid of anybody who had seen his beach, a sacred place to him by now? One, because the devils were too strong and he didn't want anybody else possessed by them; Snake had been too much trouble resisting conversion. And two, because he was jealous that someone else might have that moment of exaltation and hear the voice of The Goddess also."

"In other words," summarized Iimmi, "he thought what happened to him and Snake was something supernatural, actually connected with the beach itself, and didn't want it to happen to anybody else."

"That's right," said Geo, lying back in his bunk. "Which is sort of understandable. They didn't come in contact with any of the technology of Aptor, and so it might well have seemed that way."

Iimmi leaned back also. "Yeah," he said. "I can see how the same thing almost—almost might have happened to me. If everything had been the same."

Geo closed his eyes. Snake came down and took the top bunk; and when he slept, Snake told him of Urson, of his last thoughts, and surprisingly, things he mostly knew.

Emerging from the forecastle the next morning, he felt bright sunlight slice across his face. He had to squint, and when he did so, he saw her sitting cross-legged on the stretched canvas topping of a suspended lifeboat.

"Hi, up there," he called.

"Hello," she called down. "How are you feeling?"

Geo shrugged.

Argo slipped her feet over the gunwale and with paper bag in hand, dropped to the deck. She bobbed up next to his shoulder, grinned, and said, "Hey, come on back with me. I want to show you something."

"Sure." He followed her.

Suddenly she looked serious. "Your arm is worrying you. Why?"

Geo shrugged. "You don't feel like a whole person. I guess you're not really a whole person."

"Don't be silly," said Argo. "Besides, maybe Snake will let you have one of his. How are the medical facilities in Leptar?"

"I don't think they're up to anything like that."

"We did grafting of limbs back in Aptor," Argo said. "A most interesting way we got around the antibody problem, too. You see—"

"But that was back in Aptor," Geo said. "This is the real world we're going into now."

"Maybe I can get a doctor from the temple to come over," she shrugged. "And then, maybe I won't be able to."

"It's a pleasant thought," Geo said.

When they reached the back of the ship, Argo took out a contraption from the paper bag. "I salvaged this in my tunic. Hope I dried it off well enough last night."

"It's your motor," Geo said.

"Um-hm," said Argo. She put it on a low set of lockers by the cabin's back wall.

"How are you going to work it?" he asked. "It's got to have that stuff, electricity."

"There is more than one way to shoe a centipede," Argo assured him. She reached behind the locker and pulled up a strange gizmo of glass and wire. "I got the lens from Sis," she explained. "She's awfully nice, really. She says I can have my own laboratory all to myself. And I said she could have all the politics, which I think was wise of me, considering. Don't you?" She bent over the contraption. "Now, this lens here focuses the sunlight—isn't it a beautiful day —on these thermocouples. I got the extra metal from the ship's smith. He's

sweet. Hey, we're going to have to compare poems from now on. I mean I'm sure you're going to write a whole handful about all of this. I certainly am. Anyway, you connect it up here."

She fastened two wires to two other wires, adjusted the lens, and the tips of the thermocouple glowed red. The armature tugged once around its pivot, and then tugged around once more. Geo glanced up and saw Snake and Iimmi standing above them, looking over the rail on the cabin's roof. They grinned at each other, and then Geo looked back at the motor. It whipped around steadily, gaining speed until it whirred into an invisible copper haze. "Look at that thing go," breathed Argo. "Will you just look at that thing go!"

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By

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Kramer leaned back. "You can see the situation. How can we deal with a factor like this? The perfect variable."

"Perfect? Prediction should still be possible. A living thing still acts from necessity, the same as inanimate material. But the cause-effect chain is more subtle; there are more factors to be considered. The difference is quantitative, I think. The reaction of the living organism parallels natural causation, but with greater complexity."

Gross and Kramer looked up at the board plates, suspended on the wall, still dripping, the images hardening into place. Kramer traced a line with his pencil.

"See that? It's a pseudopodium. They're alive, and so far, a weapon we can't beat. No mechanical system can compete with that, simple or intricate. We'll have to scrap the Johnson Control and find something else."

"Meanwhile the war continues as it is. Stalemate. Checkmate. They can't get to us, and we can't get through their living minefield."

Kramer nodded. "It's a perfect defense, for them. But there still might be one answer."

"What's that?"

"Wait a minute." Kramer turned to his rocket expert, sitting with the charts and files. "The heavy cruiser that returned this week. It didn't actually touch, did it? It came close but there was no contact."

"Correct." The expert nodded. "The mine was twenty miles off. The cruiser was in space-drive, moving directly toward Proxima, line-straight, using the Johnson Control, of course. It had deflected a quarter of an hour earlier for reasons unknown. Later it resumed its course. That was when they got it."

"It shifted," Kramer said. "But not enough. The mine was coming along after it, trailing it. It's the same old story, but I wonder about the contact."

"Here's our theory," the expert said. "We keep looking for contact, a trigger in the pseudopodium. But more likely we're witnessing a psychological phenomena, a decision without any physical correlative. We're watching for something that isn't there. The mine *decides* to blow up. It sees our ship, approaches, and then decides."

"Thanks." Kramer turned to Gross. "Well, that confirms what I'm saying. How can a ship guided by automatic relays escape a mine that decides to explode? The whole theory of mine penetration is that you must avoid tripping the trigger. But here the trigger is a state of mind in a complicated, developed life-form."

"The belt is fifty thousand miles deep," Gross added. "It solves another problem for them, repair and maintenance. The damn things reproduce, fill up the spaces by spawning into them. I wonder what they feed on?"

"Probably the remains of our first-line. The big cruisers must be a delicacy. It's a game of wits, between a living creature and a ship piloted by automatic relays. The ship always loses." Kramer opened a folder. "I'll tell you what I suggest."

"Go on," Gross said. "I've already heard ten solutions today. What's yours?"

"Mine is very simple. These creatures are superior to any mechanical system, but only because they're alive. Almost any other life-form could compete with them, any higher life-form. If the yuks can put out living mines to protect their planets, we ought to be able to harness some of our own life-forms in a similar way. Let's make use of the same weapon ourselves."

"Which life-form do you propose to use?"

"I think the human brain is the most agile of known living forms. Do you know of any better?"

"But no human being can withstand outspace travel. A human pilot would be dead of heart failure long before the ship got anywhere near Proxima."

"But we don't need the whole body," Kramer said. "We need only the brain."

"What?"

"The problem is to find a person of high intelligence who would contribute, in the same manner that eyes and arms are volunteered."

"But a brain…."

"Technically, it could be done. Brains have been transferred several times, when body destruction made it necessary. Of course, to a spaceship, to a heavy outspace cruiser, instead of an artificial body, that's new."

The room was silent.

"It's quite an idea," Gross said slowly. His heavy square face twisted. "But even supposing it might work, the big question is*whose* brain?"

It was all very confusing, the reasons for the war, the nature of the enemy. The Yucconae had been contacted on one of the outlying planets of Proxima Centauri. At the approach of the Terran ship, a host of dark slim pencils had lifted abruptly and shot off into the distance. The first real encounter came between three of the yuk pencils and a single exploration ship from Terra. No Terrans survived. After that it was all out war, with no holds barred.

Both sides feverishly constructed defense rings around their systems. Of the two, the Yucconae belt was the better. The ring around Proxima was a living ring, superior to anything Terra could throw against it. The standard equipment by which Terran ships were guided in outspace, the Johnson Control, was not adequate. Something more was needed. Automatic relays were not good enough.

—Not good at all, Kramer thought to himself, as he stood looking down the hillside at the work going on below him. A warm wind blew along the hill, rustling the weeds and grass. At the bottom, in the valley, the mechanics had almost finished; the last elements of the reflex system had been removed from the ship and crated up.

All that was needed now was the new core, the new central key that would take the place of the mechanical system. A human brain, the brain of an intelligent, wary human being. But would the human being part with it? That was the problem.

Kramer turned. Two people were approaching him along the road, a man and a woman. The man was Gross, expressionless, heavy-set, walking with dignity. The woman was—He stared in surprise and growing annoyance. It was Dolores, his wife. Since they'd separated he had seen little of her….

"Kramer," Gross said. "Look who I ran into. Come back down with us. We're going into town."

"Hello, Phil," Dolores said. "Well, aren't you glad to see me?"

He nodded. "How have you been? You're looking fine." She was still pretty and slender in her uniform, the blue-grey of Internal Security, Gross' organization.

"Thanks." She smiled. "You seem to be doing all right, too. Commander Gross tells me that you're responsible for this project, Operation Head, as they

call it. Whose head have you decided on?"

"That's the problem." Kramer lit a cigarette. "This ship is to be equipped with a human brain instead of the Johnson system. We've constructed special draining baths for the brain, electronic relays to catch the impulses and magnify them, a continual feeding duct that supplies the living cells with everything they need. But—"

"But we still haven't got the brain itself," Gross finished. They began to walk back toward the car. "If we can get that we'll be ready for the tests."

"Will the brain remain alive?" Dolores asked. "Is it actually going to live as part of the ship?"

"It will be alive, but not conscious. Very little life is actually conscious. Animals, trees, insects are quick in their responses, but they aren't conscious. In this process of ours the individual personality, the ego, will cease. We only need the response ability, nothing more."

Dolores shuddered. "How terrible!"

"In time of war everything must be tried," Kramer said absently. "If one life sacrificed will end the war it's worth it. This ship might get through. A couple more like it and there wouldn't be any more war."

They got into the car. As they drove down the road, Gross said, "Have you thought of anyone yet?"

Kramer shook his head. "That's out of my line."

"What do you mean?"

"I'm an engineer. It's not in my department."

"But all this was your idea."

"My work ends there."

Gross was staring at him oddly. Kramer shifted uneasily.

"Then who is supposed to do it?" Gross said. "I can have my organization prepare examinations of various kinds, to determine fitness, that kind of thing —"

"Listen, Phil," Dolores said suddenly.

"What?"

She turned toward him. "I have an idea. Do you remember that professor we had in college. Michael Thomas?"

Kramer nodded.

"I wonder if he's still alive." Dolores frowned. "If he is he must be awfully old."

"Why, Dolores?" Gross asked.

"Perhaps an old person who didn't have much time left, but whose mind was still clear and sharp—"

"Professor Thomas." Kramer rubbed his jaw. "He certainly was a wise old duck. But could he still be alive? He must have been seventy, then."

"We could find that out," Gross said. "I could make a routine check."

"What do you think?" Dolores said. "If any human mind could outwit those creatures—"

"I don't like the idea," Kramer said. In his mind an image had appeared, the image of an old man sitting behind a desk, his bright gentle eyes moving about the classroom. The old man leaning forward, a thin hand raised—

"Keep him out of this," Kramer said.

"What's wrong?" Gross looked at him curiously.

"It's because *I* suggested it," Dolores said.

"No." Kramer shook his head. "It's not that. I didn't expect anything like this, somebody I knew, a man I studied under. I remember him very clearly. He was a very distinct personality."

"Good," Gross said. "He sounds fine."

"We can't do it. We're asking his death!"

"This is war," Gross said, "and war doesn't wait on the needs of the individual. You said that yourself. Surely he'll volunteer; we can keep it on that basis."

"He may already be dead," Dolores murmured.

"We'll find that out," Gross said speeding up the car. They drove the rest of the way in silence.

For a long time the two of them stood studying the small wood house, overgrown with ivy, set back on the lot behind an enormous oak. The little town was silent and sleepy; once in awhile a car moved slowly along the distant highway, but that was all.

"This is the place," Gross said to Kramer. He folded his arms. "Quite a quaint little house."

Kramer said nothing. The two Security Agents behind them were

expressionless.

Gross started toward the gate. "Let's go. According to the check he's still alive, but very sick. His mind is agile, however. That seems to be certain. It's said he doesn't leave the house. A woman takes care of his needs. He's very frail."

They went down the stone walk and up onto the porch. Gross rang the bell. They waited. After a time they heard slow footsteps. The door opened. An elderly woman in a shapeless wrapper studied them impassively.

"Security," Gross said, showing his card. "We wish to see Professor Thomas."

"Why?"

"Government business." He glanced at Kramer.

Kramer stepped forward. "I was a pupil of the Professor's," he said. "I'm sure he won't mind seeing us."

The woman hesitated uncertainly. Gross stepped into the doorway. "All right, mother. This is war time. We can't stand out here."

The two Security agents followed him, and Kramer came reluctantly behind, closing the door. Gross stalked down the hall until he came to an open door. He stopped, looking in. Kramer could see the white corner of a bed, a wooden post and the edge of a dresser.

He joined Gross.

In the dark room a withered old man lay, propped up on endless pillows. At first it seemed as if he were asleep; there was no motion or sign of life. But after a time Kramer saw with a faint shock that the old man was watching them intently, his eyes fixed on them, unmoving, unwinking.

"Professor Thomas?" Gross said. "I'm Commander Gross of Security. This man with me is perhaps known to you—"

The faded eyes fixed on Kramer.

"I know him. Philip Kramer…. You've grown heavier, boy." The voice was feeble, the rustle of dry ashes. "Is it true you're married now?"

"Yes. I married Dolores French. You remember her." Kramer came toward the bed. "But we're separated. It didn't work out very well. Our careers—"

"What we came here about, Professor," Gross began, but Kramer cut him off with an impatient wave.

"Let me talk. Can't you and your men get out of here long enough to let me talk to him?"

Gross swallowed. "All right, Kramer." He nodded to the two men. The three of them left the room, going out into the hall and closing the door after them.

The old man in the bed watched Kramer silently. "I don't think much of him," he said at last. "I've seen his type before. What's he want?"

"Nothing. He just came along. Can I sit down?" Kramer found a stiff upright chair beside the bed. "If I'm bothering you—"

"No. I'm glad to see you again, Philip. After so long. I'm sorry your marriage didn't work out."

"How have you been?"

"I've been very ill. I'm afraid that my moment on the world's stage has almost ended." The ancient eyes studied the younger man reflectively. "You look as if you have been doing well. Like everyone else I thought highly of. You've gone to the top in this society."

Kramer smiled. Then he became serious. "Professor, there's a project we're working on that I want to talk to you about. It's the first ray of hope we've had in this whole war. If it works, we may be able to crack the yuk defenses, get some ships into their system. If we can do that the war might be brought to an end."

"Go on. Tell me about it, if you wish."

"It's a long shot, this project. It may not work at all, but we have to give it a try."

"It's obvious that you came here because of it," Professor Thomas murmured. "I'm becoming curious. Go on."

After Kramer finished the old man lay back in the bed without speaking. At last he sighed.

"I understand. A human mind, taken out of a human body." He sat up a little, looking at Kramer. "I suppose you're thinking of me."

Kramer said nothing.

"Before I make my decision I want to see the papers on this, the theory and outline of construction. I'm not sure I like it.—For reasons of my own, I mean. But I want to look at the material. If you'll do that—"

"Certainly." Kramer stood up and went to the door. Gross and the two Security Agents were standing outside, waiting tensely. "Gross, come inside."

They filed into the room.

"Give the Professor the papers," Kramer said. "He wants to study them before deciding."

Gross brought the file out of his coat pocket, a manila envelope. He handed it to the old man on the bed. "Here it is, Professor. You're welcome to examine it. Will you give us your answer as soon as possible? We're very anxious to begin, of course."

"I'll give you my answer when I've decided." He took the envelope with a thin, trembling hand. "My decision depends on what I find out from these papers. If I don't like what I find, then I will not become involved with this work in any shape or form." He opened the envelope with shaking hands. "I'm looking for one thing."

"What is it?" Gross said.

"That's my affair. Leave me a number by which I can reach you when I've decided."

Silently, Gross put his card down on the dresser. As they went out Professor Thomas was already reading the first of the papers, the outline of the theory.

Kramer sat across from Dale Winter, his second in line. "What then?" Winter said.

"He's going to contact us." Kramer scratched with a drawing pen on some paper. "I don't know what to think."

"What do you mean?" Winter's good-natured face was puzzled.

"Look." Kramer stood up, pacing back and forth, his hands in his uniform pockets. "He was my teacher in college. I respected him as a man, as well as a teacher. He was more than a voice, a talking book. He was a person, a calm, kindly person I could look up to. I always wanted to be like him, someday. Now look at me."

"So?"

"Look at what I'm asking. I'm asking for his life, as if he were some kind of laboratory animal kept around in a cage, not a man, a teacher at all."

"Do you think he'll do it?"

"I don't know." Kramer went to the window. He stood looking out. "In a way, I hope not."

"But if he doesn't—"

"Then we'll have to find somebody else. I know. There would be somebody else. Why did Dolores have to—"

The vidphone rang. Kramer pressed the button.

"This is Gross." The heavy features formed. "The old man called me. Professor Thomas."

"What did he say?" He knew; he could tell already, by the sound of Gross' voice.

"He said he'd do it. I was a little surprised myself, but apparently he means it. We've already made arrangements for his admission to the hospital. His lawyer is drawing up the statement of liability."

Kramer only half heard. He nodded wearily. "All right. I'm glad. I suppose we can go ahead, then."

"You don't sound very glad."

"I wonder why he decided to go ahead with it."

"He was very certain about it." Gross sounded pleased. "He called me quite early. I was still in bed. You know, this calls for a celebration."

"Sure," Kramer said. "It sure does."

Toward the middle of August the project neared completion. They stood outside in the hot autumn heat, looking up at the sleek metal sides of the ship.

Gross thumped the metal with his hand. "Well, it won't be long. We can begin the test any time."

"Tell us more about this," an officer in gold braid said. "It's such an unusual concept."

"Is there really a human brain inside the ship?" a dignitary asked, a small man in a rumpled suit. "And the brain is actually alive?"

"Gentlemen, this ship is guided by a living brain instead of the usual Johnson relay-control system. But the brain is not conscious. It will function by reflex only. The practical difference between it and the Johnson system is this: a human brain is far more intricate than any man-made structure, and its ability to adapt itself to a situation, to respond to danger, is far beyond anything that could be artificially built."

Gross paused, cocking his ear. The turbines of the ship were beginning to rumble, shaking the ground under them with a deep vibration. Kramer was standing a short distance away from the others, his arms folded, watching

silently. At the sound of the turbines he walked quickly around the ship to the other side. A few workmen were clearing away the last of the waste, the scraps of wiring and scaffolding. They glanced up at him and went on hurriedly with their work. Kramer mounted the ramp and entered the control cabin of the ship. Winter was sitting at the controls with a Pilot from Space-transport.

"How's it look?" Kramer asked.

"All right." Winter got up. "He tells me that it would be best to take off manually. The robot controls—" Winter hesitated. "I mean, the built-in controls, can take over later on in space."

"That's right," the Pilot said. "It's customary with the Johnson system, and so in this case we should—"

"Can you tell anything yet?" Kramer asked.

"No," the Pilot said slowly. "I don't think so. I've been going over everything. It seems to be in good order. There's only one thing I wanted to ask you about." He put his hand on the control board. "There are some changes here I don't understand."

"Changes?"

"Alterations from the original design. I wonder what the purpose is."

Kramer took a set of the plans from his coat. "Let me look." He turned the pages over. The Pilot watched carefully over his shoulder.

"The changes aren't indicated on your copy," the Pilot said. "I wonder—" He stopped. Commander Gross had entered the control cabin.

"Gross, who authorized alterations?" Kramer said. "Some of the wiring has been changed."

"Why, your old friend." Gross signaled to the field tower through the window.

"My old friend?"

"The Professor. He took quite an active interest." Gross turned to the Pilot. "Let's get going. We have to take this out past gravity for the test they tell me. Well, perhaps it's for the best. Are you ready?"

"Sure." The Pilot sat down and moved some of the controls around. "Anytime."

"Go ahead, then," Gross said.

"The Professor—" Kramer began, but at that moment there was a

tremendous roar and the ship leaped under him. He grasped one of the wall holds and hung on as best he could. The cabin was filling with a steady throbbing, the raging of the jet turbines underneath them.

The ship leaped. Kramer closed his eyes and held his breath. They were moving out into space, gaining speed each moment.

"Well, what do you think?" Winter said nervously. "Is it time yet?"

"A little longer," Kramer said. He was sitting on the floor of the cabin, down by the control wiring. He had removed the metal covering-plate, exposing the complicated maze of relay wiring. He was studying it, comparing it to the wiring diagrams.

"What's the matter?" Gross said.

"These changes. I can't figure out what they're for. The only pattern I can make out is that for some reason—"

"Let me look," the Pilot said. He squatted down beside Kramer. "You were saying?"

"See this lead here? Originally it was switch controlled. It closed and opened automatically, according to temperature change. Now it's wired so that the central control system operates it. The same with the others. A lot of this was still mechanical, worked by pressure, temperature, stress. Now it's under the central master."

"The brain?" Gross said. "You mean it's been altered so that the brain manipulates it?"

Kramer nodded. "Maybe Professor Thomas felt that no mechanical relays could be trusted. Maybe he thought that things would be happening too fast. But some of these could close in a split second. The brake rockets could go on as quickly as—"

"Hey," Winter said from the control seat. "We're getting near the moon stations. What'll I do?"

They looked out the port. The corroded surface of the moon gleamed up at them, a corrupt and sickening sight. They were moving swiftly toward it.

"I'll take it," the Pilot said. He eased Winter out of the way and strapped himself in place. The ship began to move away from the moon as he manipulated the controls. Down below them they could see the observation stations dotting the surface, and the tiny squares that were the openings of the

underground factories and hangars. A red blinker winked up at them and the Pilot's fingers moved on the board in answer.

"We're past the moon," the Pilot said, after a time. The moon had fallen behind them; the ship was heading into outer space. "Well, we can go ahead with it."

Kramer did not answer.

"Mr. Kramer, we can go ahead any time."

Kramer started. "Sorry. I was thinking. All right, thanks." He frowned, deep in thought.

"What is it?" Gross asked.

"The wiring changes. Did you understand the reason for them when you gave the okay to the workmen?"

Gross flushed. "You know I know nothing about technical material. I'm in Security."

"Then you should have consulted me."

"What does it matter?" Gross grinned wryly. "We're going to have to start putting our faith in the old man sooner or later."

The Pilot stepped back from the board. His face was pale and set. "Well, it's done," he said. "That's it."

"What's done?" Kramer said.

"We're on automatic. The brain. I turned the board over to it—to him, I mean. The Old Man." The Pilot lit a cigarette and puffed nervously. "Let's keep our fingers crossed."

The ship was coasting evenly, in the hands of its invisible pilot. Far down inside the ship, carefully armoured and protected, a soft human brain lay in a tank of liquid, a thousand minute electric charges playing over its surface. As the charges rose they were picked up and amplified, fed into relay systems, advanced, carried on through the entire ship—

Gross wiped his forehead nervously. "So *he* is running it, now. I hope he knows what he's doing."

Kramer nodded enigmatically. "I think he does."

"What do you mean?"

"Nothing." Kramer walked to the port. "I see we're still moving in a straight line." He picked up the microphone. "We can instruct the brain orally, through

this." He blew against the microphone experimentally.

"Go on," Winter said.

"Bring the ship around half-right," Kramer said. "Decrease speed."

They waited. Time passed. Gross looked at Kramer. "No change. Nothing."

"Wait."

Slowly, the ship was beginning to turn. The turbines missed, reducing their steady beat. The ship was taking up its new course, adjusting itself. Nearby some space debris rushed past, incinerating in the blasts of the turbine jets.

"So far so good," Gross said.

They began to breathe more easily. The invisible pilot had taken control smoothly, calmly. The ship was in good hands. Kramer spoke a few more words into the microphone, and they swung again. Now they were moving back the way they had come, toward the moon.

"Let's see what he does when we enter the moon's pull," Kramer said. "He was a good mathematician, the old man. He could handle any kind of problem."

The ship veered, turning away from the moon. The great eaten-away globe fell behind them.

Gross breathed a sigh of relief. "That's that."

"One more thing." Kramer picked up the microphone. "Return to the moon and land the ship at the first space field," he said into it.

"Good Lord," Winter murmured. "Why are you—"

"Be quiet." Kramer stood, listening. The turbines gasped and roared as the ship swung full around, gaining speed. They were moving back, back toward the moon again. The ship dipped down, heading toward the great globe below.

"We're going a little fast," the Pilot said. "I don't see how he can put down at this velocity."

The port filled up, as the globe swelled rapidly. The Pilot hurried toward the board, reaching for the controls. All at once the ship jerked. The nose lifted and the ship shot out into space, away from the moon, turning at an oblique angle. The men were thrown to the floor by the sudden change in course. They got to their feet again, speechless, staring at each other.

The Pilot gazed down at the board. "It wasn't me! I didn't touch a thing. I didn't even get to it."

The ship was gaining speed each moment. Kramer hesitated. "Maybe you

better switch it back to manual."

The Pilot closed the switch. He took hold of the steering controls and moved them experimentally. "Nothing." He turned around. "Nothing. It doesn't respond."

No one spoke.

"You can see what has happened," Kramer said calmly. "The old man won't let go of it, now that he has it. I was afraid of this when I saw the wiring changes. Everything in this ship is centrally controlled, even the cooling system, the hatches, the garbage release. We're helpless."

"Nonsense." Gross strode to the board. He took hold of the wheel and turned it. The ship continued on its course, moving away from the moon, leaving it behind.

"Release!" Kramer said into the microphone. "Let go of the controls! We'll take it back. Release."

"No good," the Pilot said. "Nothing." He spun the useless wheel. "It's dead, completely dead."

"And we're still heading out," Winter said, grinning foolishly. "We'll be going through the first-line defense belt in a few minutes. If they don't shoot us down—"

"We better radio back." The Pilot clicked the radio to *send*. "I'll contact the main bases, one of the observation stations."

"Better get the defense belt, at the speed we're going. We'll be into it in a minute."

"And after that," Kramer said, "we'll be in outer space. He's moving us toward outspace velocity. Is this ship equipped with baths?"

"Baths?" Gross said.

"The sleep tanks. For space-drive. We may need them if we go much faster."

"But good God, where are we going?" Gross said. "Where—where's he taking us?"

The Pilot obtained contact. "This is Dwight, on ship," he said. "We're entering the defense zone at high velocity. Don't fire on us."

"Turn back," the impersonal voice came through the speaker. "You're not allowed in the defense zone."

"We can't. We've lost control."

"Lost control?"

"This is an experimental ship."

Gross took the radio. "This is Commander Gross, Security. We're being carried into outer space. There's nothing we can do. Is there any way that we can be removed from this ship?"

A hesitation. "We have some fast pursuit ships that could pick you up if you wanted to jump. The chances are good they'd find you. Do you have space flares?"

"We do," the Pilot said. "Let's try it."

"Abandon ship?" Kramer said. "If we leave now we'll never see it again."

"What else can we do? We're gaining speed all the time. Do you propose that we stay here?"

"No." Kramer shook his head. "Damn it, there ought to be a better solution."

"Could you contact *him*?" Winter asked. "The Old Man? Try to reason with him?"

"It's worth a chance," Gross said. "Try it."

"All right." Kramer took the microphone. He paused a moment. "Listen! Can you hear me? This is Phil Kramer. Can you hear me, Professor. Can you hear me? I want you to release the controls."

There was silence.

"This is Kramer, Professor. Can you hear me? Do you remember who I am? Do you understand who this is?"

Above the control panel the wall speaker made a sound, a sputtering static. They looked up.

"Can you hear me, Professor. This is Philip Kramer. I want you to give the ship back to us. If you can hear me, release the controls! Let go, Professor. Let go!"

Static. A rushing sound, like the wind. They gazed at each other. There was silence for a moment.

"It's a waste of time," Gross said.

"No—listen!"

The sputter came again. Then, mixed with the sputter, almost lost in it, a

voice came, toneless, without inflection, a mechanical, lifeless voice from the metal speaker in the wall, above their heads.

"… Is it you, Philip? I can't make you out. Darkness…. Who's there? With you…."

"It's me, Kramer." His fingers tightened against the microphone handle. "You must release the controls, Professor. We have to get back to Terra. You must."

Silence. Then the faint, faltering voice came again, a little stronger than before. "Kramer. Everything so strange. I was right, though. Consciousness result of thinking. Necessary result. Cognito ergo sum. Retain conceptual ability. Can you hear me?"

"Yes, Professor—"

"I altered the wiring. Control. I was fairly certain…. I wonder if I can do it. Try…."

Suddenly the air-conditioning snapped into operation. It snapped abruptly off again. Down the corridor a door slammed. Something thudded. The men stood listening. Sounds came from all sides of them, switches shutting, opening. The lights blinked off; they were in darkness. The lights came back on, and at the same time the heating coils dimmed and faded.

"Good God!" Winter said.

Water poured down on them, the emergency fire-fighting system. There was a screaming rush of air. One of the escape hatches had slid back, and the air was roaring frantically out into space.

The hatch banged closed. The ship subsided into silence. The heating coils glowed into life. As suddenly as it had begun the weird exhibition ceased.

"I can do—everything," the dry, toneless voice came from the wall speaker. "It is all controlled. Kramer, I wish to talk to you. I've been—been thinking. I haven't seen you in many years. A lot to discuss. You've changed, boy. We have much to discuss. Your wife—"

The Pilot grabbed Kramer's arm. "There's a ship standing off our bow. Look."

They ran to the port. A slender pale craft was moving along with them, keeping pace with them. It was signal-blinking.

"A Terran pursuit ship," the Pilot said. "Let's jump. They'll pick us up.

Suits—"

He ran to a supply cupboard and turned the handle. The door opened and he pulled the suits out onto the floor.

"Hurry," Gross said. A panic seized them. They dressed frantically, pulling the heavy garments over them. Winter staggered to the escape hatch and stood by it, waiting for the others. They joined him, one by one.

"Let's go!" Gross said. "Open the hatch."

Winter tugged at the hatch. "Help me."

They grabbed hold, tugging together. Nothing happened. The hatch refused to budge.

"Get a crowbar," the Pilot said.

"Hasn't anyone got a blaster?" Gross looked frantically around. "Damn it, blast it open!"

"Pull," Kramer grated. "Pull together."

"Are you at the hatch?" the toneless voice came, drifting and eddying through the corridors of the ship. They looked up, staring around them. "I sense something nearby, outside. A ship? You are leaving, all of you? Kramer, you are leaving, too? Very unfortunate. I had hoped we could talk. Perhaps at some other time you might be induced to remain."

"Open the hatch!" Kramer said, staring up at the impersonal walls of the ship. "For God's sake, open it!"

There was silence, an endless pause. Then, very slowly, the hatch slid back. The air screamed out, rushing past them into space.

One by one they leaped, one after the other, propelled away by the repulsive material of the suits. A few minutes later they were being hauled aboard the pursuit ship. As the last one of them was lifted through the port, their own ship pointed itself suddenly upward and shot off at tremendous speed. It disappeared.

Kramer removed his helmet, gasping. Two sailors held onto him and began to wrap him in blankets. Gross sipped a mug of coffee, shivering.

"It's gone," Kramer murmured.

"I'll have an alarm sent out," Gross said.

"What's happened to your ship?" a sailor asked curiously. "It sure took off in a hurry. Who's on it?"

"We'll have to have it destroyed," Gross went on, his face grim. "It's got to be destroyed. There's no telling what it—what*he* has in mind." Gross sat down weakly on a metal bench. "What a close call for us. We were so damn trusting."

"What could he be planning," Kramer said, half to himself. "It doesn't make sense. I don't get it."

As the ship sped back toward the moon base they sat around the table in the dining room, sipping hot coffee and thinking, not saying very much.

"Look here," Gross said at last. "What kind of man was Professor Thomas? What do you remember about him?"

Kramer put his coffee mug down. "It was ten years ago. I don't remember much. It's vague."

He let his mind run back over the years. He and Dolores had been at Hunt College together, in physics and the life sciences. The College was small and set back away from the momentum of modern life. He had gone there because it was his home town, and his father had gone there before him.

Professor Thomas had been at the College a long time, as long as anyone could remember. He was a strange old man, keeping to himself most of the time. There were many things that he disapproved of, but he seldom said what they were.

"Do you recall anything that might help us?" Gross asked. "Anything that would give us a clue as to what he might have in mind?"

Kramer nodded slowly. "I remember one thing…."

One day he and the Professor had been sitting together in the school chapel, talking leisurely.

"Well, you'll be out of school, soon," the Professor had said. "What are you going to do?"

"Do? Work at one of the Government Research Projects, I suppose."

"And eventually? What's your ultimate goal?"

Kramer had smiled. "The question is unscientific. It presupposes such things as ultimate ends."

"Suppose instead along these lines, then: What if there were no war and no Government Research Projects? What would you do, then?"

"I don't know. But how can I imagine a hypothetical situation like that? There's been war as long as I can remember. We're geared for war. I don't know

what I'd do. I suppose I'd adjust, get used to it."

The Professor had stared at him. "Oh, you do think you'd get accustomed to it, eh? Well, I'm glad of that. And you think you could find something to do?"

Gross listened intently. "What do you infer from this, Kramer?"

"Not much. Except that he was against war."

"We're all against war," Gross pointed out.

"True. But he was withdrawn, set apart. He lived very simply, cooking his own meals. His wife died many years ago. He was born in Europe, in Italy. He changed his name when he came to the United States. He used to read Dante and Milton. He even had a Bible."

"Very anachronistic, don't you think?"

"Yes, he lived quite a lot in the past. He found an old phonograph and records, and he listened to the old music. You saw his house, how old-fashioned it was."

"Did he have a file?" Winter asked Gross.

"With Security? No, none at all. As far as we could tell he never engaged in political work, never joined anything or even seemed to have strong political convictions."

"No," Kramer, agreed. "About all he ever did was walk through the hills. He liked nature."

"Nature can be of great use to a scientist," Gross said. "There wouldn't be any science without it."

"Kramer, what do you think his plan is, taking control of the ship and disappearing?" Winter said.

"Maybe the transfer made him insane," the Pilot said. "Maybe there's no plan, nothing rational at all."

"But he had the ship rewired, and he had made sure that he would retain consciousness and memory before he even agreed to the operation. He must have had something planned from the start. But what?"

"Perhaps he just wanted to stay alive longer," Kramer said. "He was old and about to die. Or—"

"Or what?"

"Nothing." Kramer stood up. "I think as soon as we get to the moon base I'll make a vidcall to earth. I want to talk to somebody about this."

"Who's that?" Gross asked.

"Dolores. Maybe she remembers something."

"That's a good idea," Gross said.

"Where are you calling from?" Dolores asked, when he succeeded in reaching her.

"From the moon base."

"All kinds of rumors are running around. Why didn't the ship come back? What happened?"

"I'm afraid he ran off with it."

"He?"

"The Old Man. Professor Thomas." Kramer explained what had happened.

Dolores listened intently. "How strange. And you think he planned it all in advance, from the start?"

"I'm certain. He asked for the plans of construction and the theoretical diagrams at once."

"But why? What for?"

"I don't know. Look, Dolores. What do you remember about him? Is there anything that might give a clue to all this?"

"Like what?"

"I don't know. That's the trouble."

On the vidscreen Dolores knitted her brow. "I remember he raised chickens in his back yard, and once he had a goat." She smiled. "Do you remember the day the goat got loose and wandered down the main street of town? Nobody could figure out where it came from."

"Anything else?"

"No." He watched her struggling, trying to remember. "He wanted to have a farm, sometime, I know."

"All right. Thanks." Kramer touched the switch. "When I get back to Terra maybe I'll stop and see you."

"Let me know how it works out."

He cut the line and the picture dimmed and faded. He walked slowly back to where Gross and some officers of the Military were sitting at a chart table, talking.

"Any luck?" Gross said, looking up.

"No. All she remembers is that he kept a goat."

"Come over and look at this detail chart." Gross motioned him around to his side. "Watch!"

Kramer saw the record tabs moving furiously, the little white dots racing back and forth.

"What's happening?" he asked.

"A squadron outside the defense zone has finally managed to contact the ship. They're maneuvering now, for position. Watch."

The white counters were forming a barrel formation around a black dot that was moving steadily across the board, away from the central position. As they watched, the white dots constricted around it.

"They're ready to open fire," a technician at the board said. "Commander, what shall we tell them to do?"

Gross hesitated. "I hate to be the one who makes the decision. When it comes right down to it—"

"It's not just a ship," Kramer said. "It's a man, a living person. A human being is up there, moving through space. I wish we knew what—"

"But the order has to be given. We can't take any chances. Suppose he went over to them, to the yuks."

Kramer's jaw dropped. "My God, he wouldn't do that."

"Are you sure? Do you know what he'll do?"

"He wouldn't do that."

Gross turned to the technician. "Tell them to go ahead."

"I'm sorry, sir, but now the ship has gotten away. Look down at the board."

Gross stared down, Kramer over his shoulder. The black dot had slipped through the white dots and had moved off at an abrupt angle. The white dots were broken up, dispersing in confusion.

"He's an unusual strategist," one of the officers said. He traced the line. "It's an ancient maneuver, an old Prussian device, but it worked."

The white dots were turning back. "Too many yuk ships out that far," Gross said. "Well, that's what you get when you don't act quickly." He looked up coldly at Kramer. "We should have done it when we had him. Look at him go!" He jabbed a finger at the rapidly moving black dot. The dot came to the edge of the board and stopped. It had reached the limit of the chartered area. "See?"

—Now what? Kramer thought, watching. So the Old Man had escaped the cruisers and gotten away. He was alert, all right; there was nothing wrong with his mind. Or with his ability to control his new body.

Body—The ship was a new body for him. He had traded in the old dying body, withered and frail, for this hulking frame of metal and plastic, turbines and rocket jets. He was strong, now. Strong and big. The new body was more powerful than a thousand human bodies. But how long would it last him? The average life of a cruiser was only ten years. With careful handling he might get twenty out of it, before some essential part failed and there was no way to replace it.

And then, what then? What would he do, when something failed and there was no one to fix it for him? That would be the end. Someplace, far out in the cold darkness of space, the ship would slow down, silent and lifeless, to exhaust its last heat into the eternal timelessness of outer space. Or perhaps it would crash on some barren asteroid, burst into a million fragments.

It was only a question of time.

"Your wife didn't remember anything?" Gross said.

"I told you. Only that he kept a goat, once."

"A hell of a lot of help that is."

Kramer shrugged. "It's not my fault."

"I wonder if we'll ever see him again." Gross stared down at the indicator dot, still hanging at the edge of the board. "I wonder if he'll ever move back this way."

"I wonder, too," Kramer said.

That night Kramer lay in bed, tossing from side to side, unable to sleep. The moon gravity, even artificially increased, was unfamiliar to him and it made him uncomfortable. A thousand thoughts wandered loose in his head as he lay, fully awake.

What did it all mean? What was the Professor's plan? Maybe they would never know. Maybe the ship was gone for good; the Old Man had left forever, shooting into outer space. They might never find out why he had done it, what purpose—if any—had been in his mind.

Kramer sat up in bed. He turned on the light and lit a cigarette. His quarters were small, a metal-lined bunk room, part of the moon station base.

The Old Man had wanted to talk to him. He had wanted to discuss things, hold a conversation, but in the hysteria and confusion all they had been able to think of was getting away. The ship was rushing off with them, carrying them into outer space. Kramer set his jaw. Could they be blamed for jumping? They had no idea where they were being taken, or why. They were helpless, caught in their own ship, and the pursuit ship standing by waiting to pick them up was their only chance. Another half hour and it would have been too late.

But what had the Old Man wanted to say? What had he intended to tell him, in those first confusing moments when the ship around them had come alive, each metal strut and wire suddenly animate, the body of a living creature, a vast metal organism?

It was weird, unnerving. He could not forget it, even now. He looked around the small room uneasily. What did it signify, the coming to life of metal and plastic? All at once they had found themselves inside a *living* creature, in its stomach, like Jonah inside the whale.

It had been alive, and it had talked to them, talked calmly and rationally, as it rushed them off, faster and faster into outer space. The wall speaker and circuit had become the vocal cords and mouth, the wiring the spinal cord and nerves, the hatches and relays and circuit breakers the muscles.

They had been helpless, completely helpless. The ship had, in a brief second, stolen their power away from them and left them defenseless, practically at its mercy. It was not right; it made him uneasy. All his life he had controlled machines, bent nature and the forces of nature to man and man's needs. The human race had slowly evolved until it was in a position to operate things, run them as it saw fit. Now all at once it had been plunged back down the ladder again, prostrate before a Power against which they were children.

Kramer got out of bed. He put on his bathrobe and began to search for a cigarette. While he was searching, the vidphone rang.

He snapped the vidphone on.

"Yes?"

The face of the immediate monitor appeared. "A call from Terra, Mr. Kramer. An emergency call."

"Emergency call? For me? Put it through." Kramer came awake, brushing his hair back out of his eyes. Alarm plucked at him.

From the speaker a strange voice came. "Philip Kramer? Is this Kramer?"

"Yes. Go on."

"This is General Hospital, New York City, Terra. Mr. Kramer, your wife is here. She has been critically injured in an accident. Your name was given to us to call. Is it possible for you to—"

"How badly?" Kramer gripped the vidphone stand. "Is it serious?"

"Yes, it's serious, Mr. Kramer. Are you able to come here? The quicker you can come the better."

"Yes." Kramer nodded. "I'll come. Thanks."

The screen died as the connection was broken. Kramer waited a moment. Then he tapped the button. The screen relit again. "Yes, sir," the monitor said.

"Can I get a ship to Terra at once? It's an emergency. My wife—"

"There's no ship leaving the moon for eight hours. You'll have to wait until the next period."

"Isn't there anything I can do?"

"We can broadcast a general request to all ships passing through this area. Sometimes cruisers pass by here returning to Terra for repairs."

"Will you broadcast that for me? I'll come down to the field."

"Yes sir. But there may be no ship in the area for awhile. It's a gamble." The screen died.

Kramer dressed quickly. He put on his coat and hurried to the lift. A moment later he was running across the general receiving lobby, past the rows of vacant desks and conference tables. At the door the sentries stepped aside and he went outside, onto the great concrete steps.

The face of the moon was in shadow. Below him the field stretched out in total darkness, a black void, endless, without form. He made his way carefully down the steps and along the ramp along the side of the field, to the control tower. A faint row of red lights showed him the way.

Two soldiers challenged him at the foot of the tower, standing in the shadows, their guns ready.

"Kramer?"

"Yes." A light was flashed in his face.

"Your call has been sent out already."

"Any luck?" Kramer asked.

"There's a cruiser nearby that has made contact with us. It has an injured jet and is moving slowly back toward Terra, away from the line."

"Good." Kramer nodded, a flood of relief rushing through him. He lit a cigarette and gave one to each of the soldiers. The soldiers lit up.

"Sir," one of them asked, "is it true about the experimental ship?"

"What do you mean?"

"It came to life and ran off?"

"No, not exactly," Kramer said. "It had a new type of control system instead of the Johnson units. It wasn't properly tested."

"But sir, one of the cruisers that was there got up close to it, and a buddy of mine says this ship acted funny. He never saw anything like it. It was like when he was fishing once on Terra, in Washington State, fishing for bass. The fish were smart, going this way and that—"

"Here's your cruiser," the other soldier said. "Look!"

An enormous vague shape was setting slowly down onto the field. They could make nothing out but its row of tiny green blinkers. Kramer stared at the shape.

"Better hurry, sir," the soldiers said. "They don't stick around here very long."

"Thanks." Kramer loped across the field, toward the black shape that rose up above him, extended across the width of the field. The ramp was down from the side of the cruiser and he caught hold of it. The ramp rose, and a moment later Kramer was inside the hold of the ship. The hatch slid shut behind him.

As he made his way up the stairs to the main deck the turbines roared up from the moon, out into space.

Kramer opened the door to the main deck. He stopped suddenly, staring around him in surprise. There was nobody in sight. The ship was deserted.

"Good God," he said. Realization swept over him, numbing him. He sat down on a bench, his head swimming. "Good God."

The ship roared out into space leaving the moon and Terra farther behind each moment.

And there was nothing he could do.

"So it was you who put the call through," he said at last. "It was you who called me on the vidphone, not any hospital on Terra. It was all part of the

plan." He looked up and around him. "And Dolores is really—"

"Your wife is fine," the wall speaker above him said tonelessly. "It was a fraud. I am sorry to trick you that way, Philip, but it was all I could think of. Another day and you would have been back on Terra. I don't want to remain in this area any longer than necessary. They have been so certain of finding me out in deep space that I have been able to stay here without too much danger. But even the purloined letter was found eventually."

Kramer smoked his cigarette nervously. "What are you going to do? Where are we going?"

"First, I want to talk to you. I have many things to discuss. I was very disappointed when you left me, along with the others. I had hoped that you would remain." The dry voice chuckled. "Remember how we used to talk in the old days, you and I? That was a long time ago."

The ship was gaining speed. It plunged through space at tremendous speed, rushing through the last of the defense zone and out beyond. A rush of nausea made Kramer bend over for a moment.

When he straightened up the voice from the wall went on, "I'm sorry to step it up so quickly, but we are still in danger. Another few moments and we'll be free."

"How about yuk ships? Aren't they out here?"

"I've already slipped away from several of them. They're quite curious about me."

"Curious?"

"They sense that I'm different, more like their own organic mines. They don't like it. I believe they will begin to withdraw from this area, soon. Apparently they don't want to get involved with me. They're an odd race, Philip. I would have liked to study them closely, try to learn something about them. I'm of the opinion that they use no inert material. All their equipment and instruments are alive, in some form or other. They don't construct or build at all. The idea of *making* is foreign to them. They utilize existing forms. Even their ships—"

"Where are we going?" Kramer said. "I want to know where you are taking me."

"Frankly, I'm not certain."

"You're not certain?"

"I haven't worked some details out. There are a few vague spots in my program, still. But I think that in a short while I'll have them ironed out."

"What is your program?" Kramer said.

"It's really very simple. But don't you want to come into the control room and sit? The seats are much more comfortable than that metal bench."

Kramer went into the control room and sat down at the control board. Looking at the useless apparatus made him feel strange.

"What's the matter?" the speaker above the board rasped.

Kramer gestured helplessly. "I'm—powerless. I can't do anything. And I don't like it. Do you blame me?"

"No. No, I don't blame you. But you'll get your control back, soon. Don't worry. This is only a temporary expedient, taking you off this way. It was something I didn't contemplate. I forgot that orders would be given out to shoot me on sight."

"It was Gross' idea."

"I don't doubt that. My conception, my plan, came to me as soon as you began to describe your project, that day at my house. I saw at once that you were wrong; you people have no understanding of the mind at all. I realized that the transfer of a human brain from an organic body to a complex artificial space ship would not involve the loss of the intellectualization faculty of the mind. When a man thinks, he *is*.

"When I realized that, I saw the possibility of an age-old dream becoming real. I was quite elderly when I first met you, Philip. Even then my life-span had come pretty much to its end. I could look ahead to nothing but death, and with it the extinction of all my ideas. I had made no mark on the world, none at all. My students, one by one, passed from me into the world, to take up jobs in the great Research Project, the search for better and bigger weapons of war.

"The world has been fighting for a long time, first with itself, then with the Martians, then with these beings from Proxima Centauri, whom we know nothing about. The human society has evolved war as a cultural institution, like the science of astronomy, or mathematics. War is a part of our lives, a career, a respected vocation. Bright, alert young men and women move into it, putting their shoulders to the wheel as they did in the time of Nebuchadnezzar. It has

always been so.

"But is it innate in mankind? I don't think so. No social custom is innate. There were many human groups that did not go to war; the Eskimos never grasped the idea at all, and the American Indians never took to it well.

"But these dissenters were wiped out, and a cultural pattern was established that became the standard for the whole planet. Now it has become ingrained in us.

"But if someplace along the line some other way of settling problems had arisen and taken hold, something different than the massing of men and material to—"

"What's your plan?" Kramer said. "I know the theory. It was part of one of your lectures."

"Yes, buried in a lecture on plant selection, as I recall. When you came to me with this proposition I realized that perhaps my conception could be brought to life, after all. If my theory were right that war is only a habit, not an instinct, a society built up apart from Terra with a minimum of cultural roots might develop differently. If it failed to absorb our outlook, if it could start out on another foot, it might not arrive at the same point to which we have come: a dead end, with nothing but greater and greater wars in sight, until nothing is left but ruin and destruction everywhere.

"Of course, there would have to be a Watcher to guide the experiment, at first. A crisis would undoubtedly come very quickly, probably in the second generation. Cain would arise almost at once.

"You see, Kramer, I estimate that if I remain at rest most of the time, on some small planet or moon, I may be able to keep functioning for almost a hundred years. That would be time enough, sufficient to see the direction of the new colony. After that—Well, after that it would be up to the colony itself.

"Which is just as well, of course. Man must take control eventually, on his own. One hundred years, and after that they will have control of their own destiny. Perhaps I am wrong, perhaps war is more than a habit. Perhaps it is a law of the universe, that things can only survive as groups by group violence.

"But I'm going ahead and taking the chance that it is only a habit, that I'm right, that war is something we're so accustomed to that we don't realize it is a very unnatural thing. Now as to the place! I'm still a little vague about that. We

must find the place, still.

"That's what we're doing now. You and I are going to inspect a few systems off the beaten path, planets where the trading prospects are low enough to keep Terran ships away. I know of one planet that might be a good place. It was reported by the Fairchild Expedition in their original manual. We may look into that, for a start."

The ship was silent.

Kramer sat for a time, staring down at the metal floor under him. The floor throbbed dully with the motion of the turbines. At last he looked up.

"You might be right. Maybe our outlook is only a habit." Kramer got to his feet. "But I wonder if something has occurred to you?"

"What is that?"

"If it's such a deeply ingrained habit, going back thousands of years, how are you going to get your colonists to make the break, leave Terra and Terran customs? How about *this* generation, the first ones, the people who found the colony? I think you're right that the next generation would be free of all this, if there were an—" He grinned. "—An Old Man Above to teach them something else instead."

Kramer looked up at the wall speaker. "How are you going to get the people to leave Terra and come with you, if by your own theory, this generation can't be saved, it all has to start with the next?"

The wall speaker was silent. Then it made a sound, the faint dry chuckle.

"I'm surprised at you, Philip. Settlers can be found. We won't need many, just a few." The speaker chuckled again. "I'll acquaint you with my solution."

At the far end of the corridor a door slid open. There was sound, a hesitant sound. Kramer turned.

"Dolores!"

Dolores Kramer stood uncertainly, looking into the control room. She blinked in amazement. "Phil! What are you doing here? What's going on?"

They stared at each other.

"What's happening?" Dolores said. "I received a vidcall that you had been hurt in a lunar explosion—"

The wall speaker rasped into life. "You see, Philip, that problem is already solved. We don't really need so many people; even a single couple might do."

Kramer nodded slowly. "I see," he murmured thickly. "Just one couple. One man and woman."

"They might make it all right, if there were someone to watch and see that things went as they should. There will be quite a few things I can help you with, Philip. Quite a few. We'll get along very well, I think."

Kramer grinned wryly. "You could even help us name the animals," he said. "I understand that's the first step."

"I'll be glad to," the toneless, impersonal voice said. "As I recall, my part will be to bring them to you, one by one. Then you can do the actual naming."

"I don't understand," Dolores faltered. "What does he mean, Phil? Naming animals. What kind of animals? Where are we going?"

Kramer walked slowly over to the port and stood staring silently out, his arms folded. Beyond the ship a myriad fragments of light gleamed, countless coals glowing in the dark void. Stars, suns, systems. Endless, without number. A universe of worlds. An infinity of planets, waiting for them, gleaming and winking from the darkness.

He turned back, away from the port. "Where are we going?" He smiled at his wife, standing nervous and frightened, her large eyes full of alarm. "I don't know where we are going," he said. "But somehow that doesn't seem too important right now…. I'm beginning to see the Professor's point, it's the result that counts."

And for the first time in many months he put his arm around Dolores. At first she stiffened, the fright and nervousness still in her eyes. But then suddenly she relaxed against him and there were tears wetting her cheeks.

"Phil … do you really think we can start over again—you and I?"

He kissed her tenderly, then passionately.

And the spaceship shot swiftly through the endless, trackless eternity of the void….

THE HOUSE FROM NOWHERE



by … Arthur G. Stangland

New neighbors are always exciting. But the anachronistic MacDonalds offered a bit too much.

The morning paper lay unread before Philon Miller on the breakfast table and even the prospects of steaming coffee, ham, eggs and orange juice could not make him forget his last night's visitors.

On the closed-circuit Industrial TV screen glowed the words, *Food Preparation Center breakfast menu for July 24, 2052. No. 1, orange juice, coffee, ham and eggs. No. 2, waffle, coffee....*

Automatically he punched the button for *No. 1*. Oh, his visitors had made matters appear justifiable. The presidential election campaign was going badly, Rakoff the chairman said, and his poll-quota for the election had been upped from twenty-five grand to fifty.

A stainless-steel capsule popped into the transparent wall dock. Of course the party quota system was taken for granted, he mused, removing the capsule, but it was an obligation you didn't welsh on. The muscle boys in the party organization saw to that. But still, fifty thousand....

Across the table John, his sixteen-year-old adopted son, stirred. "I guess you aren't as hungry as I am, Phil."

"What? Oh, sorry." John—down here for breakfast? What was the matter? The kid sick or something? Every morning he took his meal to his room to eat in solitude. Funny kid.

Philon removed the food capsule from the wall dock, stopping the soft gushing of air in the suction tube. Setting it on the table he snapped it open and removed the individual thermocels of food.

Philon poured coffee from the thermos and absently stirred in cream and sugar. Fifty thousand....

John was well into his breakfast already. "Phil, I was down to visit those people on the corner—you know, the house that appeared there over-night."

"Um."

"Their name is MacDonald," John said. "And they have a son, Jimmie, just my age, and a younger girl, Jean. Gosh, you ought to see the inside of their house, Phil. Old-fashioned! At the windows they got something called venetian

blinds instead of our variable mirror thermopanes. And you know what? They don't even have an FP connection. They prepare all their meals in the house!"

John's excitement finally aroused Philon's attention. "No Food Preparation service? But that's unheard of!"

"They're sure swell people though."

"Where in the world did they come from?" Philon poured more coffee.

"Some place out West—Oregon, I think. Lived in a small town."

"How come their house appeared over-night?"

"Yeah, I asked them about that," John said. "They said their house is a prefab and it was cheaper to move it from Oregon than to buy one here. So they moved in one night—lock, stock and barrel."

John looked at Philon with a tentative air. "And another thing—Jimmie and Jean are their real children."

Philon began to frown in disgust. "Real children—how vulgar! No one does that anymore. That custom went out years ago with the Eugenic Act of two thousand twenty-nine. Breeding perfect children is the job of selected specimens. Why, I remember the day we passed our check over to Maternity Clinic! You were the best specimen in the place—and you carried the highest price tag too—ten thousand dollars!"

At that moment Ursula, his wife, her green rinse tumbling in stringy tufts over her forehead pattered into the breakfast room. Her right eye was closed in a tight squint against her cigarette smoke.

"Well, do I get my share of breakfast," she muttered, "or do I have to scrabble at the trough like the rest of the hogs around here?"

Philon nodded at a third thermocel in the capsule. "That's yours, Ursula." He fixed her with a cocked eye. "What time did that gigolo get you home this morning?"

Ursula blew the hair out of her eyes, then took a good look at her husband. "Why all the sudden concern about my affairs? I feel like going to the Cairo I call up Francois. He dances divinely. I feel like making love I call up Jose...." She shrugged. "So, I say, why the sudden concern? All these years you say nothing. Every minute away from home you're involved in big deals to make money, steal money—maybe even eat it."

He looked at her cryptically. "I've got to raise a fifty-grand quota."

Without even looking up from her breakfast Ursula said absently, "Oh, that. It *is* election year again, isn't it?"

"And I'll have to ask you to cancel all unnecessary expenditures for the time being."

She shook her head. "Can't—I've already reserved *Love's Passion* for this afternoon and a whole block of titles for three months."

Philon compressed his mouth, then practically blew the words at her. "Damn it, Ursula, you're spending too much time psycho-dreaming these cheap plays. You know the psychiatrist has warned you to lay off them. Stimulates your endocrine system too much. No wonder you live on sleeping pills."

"Oh, shut up!" She stared at him, the anger in her tugging at her loose mouth. "If I feel like a psychoplay I'm going to have me a psychoplay. It's the only stimulation I get any more."

Muttering, "T'hell with it!" Philon got up from the table and walked into the living room. Slipping into his gray top coat and hat he ascended to the copter roofport.

Before stepping into the copter seat he paused to study the MacDonald house on the corner. Odd-looking house at that. Mid-twentieth century, yet it looked brand new.

Then, putting the house out of mind, Philon shot his copter skyward and joined Skyway No. 7 traffic into town.

Descending on his office building he left the ship in care of the parking attendant and by elevator dropped to his floor. At a door marked *Miller Electronic Manufacturing Co.* he walked in.

In his office he slouched into his chair and stared at the small calendar on his desk. Rakoff wanted the fifty-thousand before Royal Pastel Mink Monday. One week—that wasn't very much time.

Flinching from the unpleasant problem, he stared at the city skyline, his mind drifting lazily. He thought about Royal Pastel Mink Monday. Some said it was just another Day dreamed up by furriers to make people fur-conscious. Others said it commemorated a period of great public indifference which cost large numbers their freedom to vote.

Of course the other party had their symbology too—like the Teapot Celebration. No one seemed to know for sure what it meant. Anyway, why worry

how they started? Why did people knock on wood for luck—or throw salt over their left shoulder?

But then once in awhile there arose some who spelled out a strange lonely cry, calling themselves the conscience of the people. They spoke sternly of the thin moral fiber of the country, berating the people for what they called their amoral evolution brought on by indifference and negligence until they no longer could hear the still guiding voice of their conscience. But they were scornfully laughed down and it seemed to Philon he heard less and less of these men.

In the late afternoon a whip from party headquarters dropped in. "Hello, Feisel," Philon said with little enthusiasm for the swarthy-faced man.

Without even the formality of a greeting Feisel smiled down at Philon in a half-sneer. "Well, Philon, how we doin' with the fifty grand, eh?"

Philon tossed a sheaf of papers on the desk with a gesture of impatience. "Now look, I'll raise the fifty G's by the end of the week."

Feisel lifted a thin black eyebrow and shrugged elaborately. "Just inquiring, my friend, just inquiring. You know—just showing friendly interest."

"Well, go peddle your papers to somebody else. You make me nervous."

Feisel sniffed with injured pride. "That's gratitude for you. And just when I was going to put a little bee in your bonnet. I thought you'd like to know what happened to another guy just like you. You see, he got ideas, instead of digging to get his quota. He tried to lam out and you know where they found him? On the sidewalk below his twenty-third-floor window."

As Feisel went out, Philon swore softly at his retreating back. But Feisel's little story sent a chill through him.

That evening when he descended from his copter port and stepped into his living room he was surprised to hear young voices upstairs. Deciding to investigate he stepped on the escalator. At John's door he poked his head in.

"Hello."

A young blond-headed boy with bright clear eyes turned to look at him and a younger girl with short curly hair smiled back.

John said, "Phil, this is Jimmie, and Jean, his sister. They don't have a home-school teleclass rig yet, so they're attending with me."

"I see." Philon nodded to the children. "And how did you like your first day at school?"

"Fine," Jean said, beaming until her eyes almost disappeared. "It was fun. The teacher was talking about the history of atomic energy and when I told her we had one of the first editions of the famous Smyth report on *Atomic Energy* she was surprised."

"A first edition of the *Smyth Report*? No wonder your teacher was surprised." Through Philon's mind ran the recollection that first editions of the Smyth Report brought as high as seventy thousand dollars.

The children's excited chatter was suddenly interrupted by the front door chimes. Stepping to the wall televiewer, Philon pressed a button and said, "Who is it?"

A pleasant-faced man with a startled look said, "Oh—sorry. This gadget on the door-casing surprised me. Ah—I think my children, Jimmie and Jean, are here. I'm Bill MacDonald."

Behind him Philon heard Jean suppress a dismayed cry. "Gosh, Jimmie, it's late. Daddy's had to come for us!"

Philon said, "And I'm Phil Miller, MacDonald. Come in. We'll be down in a moment."

The MacDonald children and John headed for the stairs in a happy rush, ignoring the descending escalator, two steps at a time. Philon followed at a meditative pace, his thoughts trooping stealthily abreast. Seventy thousand dollars. Now, if he were to....

"Beautiful home you've got here, Miller."

Philon came out of his daydreaming to see MacDonald coming into view around the corner of a living room ell.

Philon took his extended hand. "Thanks. Glad you like it."

Jean broke in breathlessly. "Oh, Daddy, you ought to see how they conduct classes—by school TV. You write on a glass square and it appears immediately at the teacher's roll-board. And when you—"

Jimmie interrupted. "Aw, lemme tell 'im something too, Jean. Dad, John used a spare TV for Jean's freshman class while we 'showed' for junior class on his. Gosh, in history, Dad, their old newsreels go back to World War Two. I even saw your Marine unit—"

MacDonald cut his son short. "That's enough, Jimmie. You can tell us about it later." He herded his children toward the front door. "Thanks, Miller, for

letting the kids use the school TV. I'm having one installed tomorrow."

After they left John said with a sparkle Philon had never seen before, "You know, Phil, those are the most interesting kids I've ever met. All the others I know are bored stiff. They've been everyplace and they've done everything.

"But Jimmie and Jean ask more questions about things than anybody I know. They're really interested. Every time I drop in on them they're studying history beginning with the middle of the Twentieth Century. They're absolutely fascinated and read it like fiction."

With more on his mind than his neighbors' unusual behavior Philon said, "Mmm." He stood looking at the boy for a long moment until John finally shifted self-consciously.

"What's the matter, Phil?"

Philon ended his musing. "Tomorrow night we're all going to call on the MacDonalds. And while we're there I want you to slip that copy of the *Smyth Report* out of their library."

For a moment the young boy's smooth face was a blank mask. Then it filled in with shocked surprise, then resentment and finally anger. "You mean—steal?"

"Of course. If they're too innocent to realize the value of the book that's their hard luck."

"But, Phil, I can't imagine myself stealing from...."

Impatiently, Philon said, "Since when did you suddenly get so holier-than-thou? Life is harsh, life is iron-fisted and if you don't keep your guard up you're going to get socked in the kisser."

John said slowly with a certain tone of shame, "Yes, I know. As far back as I can remember you've told me that. But in spite of it I can't help feeling it isn't right to treat the MacDonalds that way. They're too nice, too good."

"Look, John. You might as well learn the hard facts of life. All the high-sounding arguments for a moral world and all the laws on the books implementing those arguments are just eyewash. Sure, the President swears that he will uphold the constitution and enforce all the laws.

"Then we carefully surround him with counterspies—wire his rooms with dictaphones, slit his mail, install secret informers on his staff. All because no matter who the party is able to elect we don't trust him—because the society he

represents does not trust itself."

"Is that why we have more and bigger jails than ever?"

Philon shrugged. "All I'm trying to tell you is don't go soft-headed or the world will take your shirt."

The next day before leaving for the office Philon said to his wife, "Call up the MacDonalds and if they're going to be home tonight tell them we'll be over for a visit."

Ursula made a face. "Do we *have* to call on those people? They'll bore me stiff."

"For heaven's sake, Ursula! It's a matter of vital importance to me—and you also, if I have to appeal to your wide streak of selfishness."

"I can't see it."

"I'll explain later. I've got to go."

During the day Ursula called him. "Well, Phil, I called as you said and I've committed us for dinner tonight."

"Dinner! Hmm, they *are* convivial people."

"Yes and the dinner is going to be cooked right there in their house. How vulgar can some people get?"

That evening while dressing Ursula said, "Phil, John spends a lot of time at the MacDonalds'. What do you suppose he sees in them? It gets me the way he quotes them all the time and reports their least doings. Today he came tearing into the house and said, 'Ursula, it's wonderful!' I said, 'What's wonderful?' And John said, 'The dinner they're cooking at MacDonalds'. I've never smelled anything like it in all my life. Why don't we cook in our house like they do? Mrs. MacDonald was baking cookies and let me have one right out of the oven. Mmmm, boy was it *good*!'"

Ursula finished, "Now, I ask you, did you ever hear anything so barbaric—cooking in the house and having all the odors permeate the whole place?"

"Well, we'll see."

Later when they arrived at the MacDonalds' they were welcomed with a quiet warmth and friendliness that Philon cynically assumed to be a new and different front.

As they sat down to dinner Mrs. MacDonald, a rosy-cheeked woman with a quick and ready smile, said, "I'm sorry we aren't able to get a connection yet. So

everything we're eating tonight is right out of our deep-freeze."

John Miller said, "Gosh, Mrs. MacDonald, as far as I'm concerned, I'd rather eat from your deep-freeze anytime than from the FP!"

Bill MacDonald looked across the table at Jean and said, "All right, Jean."

Jean and all the MacDonalds bent their heads and the girl began, "We thank Thee for our daily bread as by Thy hands...."

As the girl spoke Phil's gaze drifted around to his wife, who lifted her shoulders in mystified amazement. But it was a bigger surprise to see John's bent head. For the moment John was a part of this family—part of a wholeness tied together by an invisible bond. The utter strangeness of it shocked Philon into rare clarity of insight.

He saw himself wrapped up in his business with little regard for Ursula or John, letting them exist under his roof without making them a part of his life. Ursula with her succession of gigolos and her psycho-plays and John withdrawn into his upstairs room with his books. Then he closed his mind again as if the insight were too blinding.

What strange customs these MacDonalds had! Yet he had to admit the meal looked more appetizing than anything he had ever seen. It gave an impression of sumptuous plenty to see the food for everybody in one place instead of individually packaged under glistening thermocel. And instead of throwaway dishes they used chinaware that could have come right out of a museum.

Ursula asked, "What kind of fish is this?"

Bill MacDonald answered with a big grin. "It's Royal Chinook salmon that I caught in the fish derby on the Columbia River only last—"

Mrs. MacDonald colored suddenly. "You'll have to forgive Bill. He gets himself so wrapped up in his fishing."

Glancing at MacDonald Philon was surprised to see the same confusion and embarrassment on his host's face.

It was after dinner when Mrs. MacDonald and Jean were clearing the table that Philon looked over the library shelves. MacDonald himself appeared uneasy and hovered in the background.

"You'll have to excuse my selections. They're all pretty old. I—er—inherited most of them from a grandfather."

In a few minutes Philon spotted the *Smyth Report*. Fixing its position well in

mind he turned away. MacDonald was saying, "Come down in the basement and I'll show you my hobby room."

"Glad to." As MacDonald led the way Philon whispered to John, "You'll find the book on the second shelf from the bottom on the right side."

John returned him a stony stare of belligerence and Philon clamped his jaw. The boy dropped his glance and gave a reluctant nod of acquiescence.

Upstairs a half hour later Ursula, who had filled her small ashtray with a mound of stubs, suddenly told Philon she was going home.

"But, Ursula, I thought that—"

With thin-lipped impatience she snapped, "I just remembered I had another engagement at eight."

Mrs. MacDonald was genuinely sorry. "Oh, that's too bad, I thought we could have the whole evening together."

Casting a meaningful glance at John and getting a confirming cold-eyed nod in return, Philon got on his feet. "Sorry, folks. Maybe we'll get together another time."

"I hope so," MacDonald said.

In angry silence Philon walked home. Not until they were all in the house and Ursula was hastening toward her second-floor room did he say a word. "I suppose your 'other engagement' means the Cairo again tonight?"

Ascending on the escalator Ursula turned to look scornfully over her shoulder. "Yes! Anything to escape from boredom. All that woman talked about while you were in the basement was redecorating the house or about cooking and asking my opinions. *Ugh!*"

Philon laughed mirthlessly. "Yeah, I guess she picked a flat number to discuss those things with. Anything you might have learned about them you must have got out of a psychoplay."

Stepping off the escalator at the top Ursula spit a nasty epithet his way, then disappeared into the upstairs hall.

John stood at the foot of the escalator, a reluctant witness to the bickering. Divining his attitude Philon mentally shrugged it off. The kid might as well learn what married life was like in these modern days.

"You got the book, eh?"

John pulled a book from his suit coat and laid it on a small table. "Yes,

there's the book—and I never felt so rotten about anything in all my life!"

Philon said, "Kid, you've got a lot to learn about getting along in this world."

"All right—so I've got a lot to learn," John cried bitterly. "But there must be more to life than trying to stop the other guy from stripping the shirt off your back while you succeed in stripping off his!"

With that he took the escalator to the upper hall while Philon watched him disappear.

Left alone now, Philon settled into a chair by a window and stared down the street at the MacDonald house. Odd people—it almost seemed they didn't belong in this time and period, considering their queer ways of thinking and looking at things. MacDonald himself in particular had some odd personal attitudes.

Like that incident in his basement—Philon had curiously pulled open a heavy steel door to a small cubicle filled with a most complex arrangement of large coils and heavy insulators and glassed-in filaments. MacDonald was almost rude in closing the door when he found Philon opening it. He had fumbled and stuttered around, explaining the room was a niche where he did a little experimenting on his own. Yes, strange people.

The next day Philon eagerly hastened to a bookstore dealing in antique editions. Hugging the book closely Philon told himself his troubles were all over. The book would surely bring between fifty and a hundred grand.

A clerk approached. "Can I help you?"

"I want to talk to Mr. Norton himself."

The clerk spoke into a wrist transmitter. "Mr. Norton, a man to see you."

In a few moments a bulbous man came heavily down the aisle, peering through dark tinted glasses at Philon. "Yes?"

"I have a very rare first edition of Smyth's *Atomic Energy*," said Philon, showing the book.

Norton adjusted his glasses, then took the book. He carefully handled it, looking over the outside of the covers, then thumbed the pages. After a long frowning moment, he said, "Publication date is nineteen forty-six but the book's fairly new. Must have been kept hermetically sealed in helium for a good many years."

"Yeah, yeah, it was," Philon said matter-of-factly. "Came from my paternal grandfather's side of the family. A book like this ought to be worth at the very least seventy-five thousand."

But the bulbous Mr. Norton was not impressed. He shrugged vaguely. "Well—it's just possible—" He looked up at Philon suddenly. "Before I make any offer to you I shall have to radiocarbon date the book. Are you willing to sacrifice a back flyleaf in the process?"

"Why a flyleaf?"

"We have to convert a sample of the book into carbon dioxide to geigercount the radioactivity in the carbon. You see, all living things like the cotton in the rags the paper is made of absorb the radioactive carbon fourteen that is formed in the upper atmosphere by cosmic radiation. Then it begins to decay and we can measure very accurately the amount, which gives us an absolute time span."

With a frustrated feeling Philon agreed. "Well okay then. It's a waste of time I think. The book is obviously a first edition."

"It will take the technician about two hours to complete the analysis. We'll have an answer for you—say after lunch."

The two hours dragged by and Philon eagerly hastened to the store.

When Mr. Norton appeared he wore the grim look of a righteously angry man. He thrust the book at Philon. "Here, sir, is your book. The next time you try to foist one over on a book trader remember science is a shrewd detective and you'll have to be cleverer than you've been this time. This book is, I'll admit, a clever job, but nevertheless a forgery. It was not printed in nineteen forty-six. The radiocarbon analysis fixes its age at a mere five or six years. Good day, sir!"

Philon's mouth fell open. "But—but the MacDonalds have had it for...." He caught himself, and stammered, "There must be some mistake because I...."

Norton said firmly, "I bid you good day, sir!"

With a sense of the sky falling in on him, Philon found himself out on the street. No one could be trusted nowadays and he shouldn't have been surprised at the MacDonalds. Everyone had a little sideline, a gimmick, to put one over on whoever was gullible enough to swallow it.

Why should he assume a hillbilly family from way out in Oregon was any

different? This was probably Bill MacDonald's little racket and it was just Philon's bad luck to stumble on it. MacDonald probably peddled his spurious first editions down on Front Street for a few hundred dollars to old bookstores unable to afford radiocarbon dating.

For awhile he stared out his office window, brooding. The fifty grand just wasn't to be had—legally or illegally. And when he recalled Feisel's little gem about the man falling out his office window Philon was definitely ill.

Then the cunning that comes to the rescue of all scheming gentry who depend on their wits emerged from perverse hiding. An ingenious idea to solve the nagging problem of the fifty thousand arrived full-blown. Grinning secretively to himself, he walked into the telecommunications room.

He got the Technical Reference Room at the Public Library and asked for the detailed plans of the big electronic National Vote Tabulating machine in Washington. At the other end a microfilm reel clicked into place, ready to obey his finger-tip control.

For two hours he read and read, making notes and studying the circuits of the complicated machine. Then, satisfied with his information, he returned the microfilm.

Leaving the office he descended to the streets and set out for the party headquarters. Now if only he could sell the neat little idea to the hierarchy....

At the luxurious marbled headquarters he asked to be let into the general chairman's office. The receptionist announced him and Philon walked in to find Rakoff awaiting him behind his beautiful carved desk.

Rakoff's dead-white cheeks never stirred and his stiff blond hair stood up in a rigid crew cut. He rolled his cigar in his big mouth. "Hello, Miller. What's on your mind?"

Philon took a breath and it seemed to him now that this idea was a crazy one. "I came to tell you I'm unable to raise my fifty grand quota, Rakoff."

The man's brows moved slightly and his eyes narrowed significantly. With a rasp in his voice he said deliberately, "That's too bad, Mr. Miller—for you."

The rasping tongue put a faint quaver in Philon's voice but he went on. "However, I've brought you an idea that's worth more than fifty grand. It's worth millions."

Rakoff's eyes hardly blinked. "I'm listening—you're talking."

And Philon talked, talked rapidly and convincingly. When he finished Rakoff slapped his fat thigh in excitement.

That evening Philon dropped in on Bill MacDonald, who was sitting in his slippers smoking an old fashioned wood pipe.

"Come in, come in." MacDonald greeted him with a friendly smile. "I was just doing a little reading."

Philon held out the book. "I'm returning your masterpiece," he said with a sardonic smile.

MacDonald received it, glancing at the title. "Oh, Smyth's *Atomic Energy*. Good book—did you find it interesting?"

Philon began to laugh. "Well, I'll tell you, Bill, your little racket of having spurious first editions printed some place and then peddling them sure caught up with me."

The good-natured smile on MacDonald's face faded in a look of incredulity. He took the pipe from his mouth. "Spurious first editions?"

"Yeah, I sure took a beating today but I couldn't help laughing over it afterwards. Here I've been thinking of you folks as simon-pure numbers. But I got to hand it to you. You sure took me in with Smyth's *Atomic Energy* as being a genuine first edition." Philon went on to explain the radiocarbon dating of the book.

MacDonald finally broke in to protest, "But that book really *is* over a hundred years old." Then he looked up at his wife. "Of course, Carol, that's the explanation. The radiocarbon wouldn't decay a full hundred years any more than we...." Suddenly, he seemed to catch himself, as his wife raised a hand in apparent agitation.

"But why did you want to sell my book to a dealer?" MacDonald continued.

Philon went on to explain the system of the poll quota. He told him a lot of other things too about the election of a President and the organized political machines that levied upon all registered voters what amounted to a checkoff of their incomes.

Carol MacDonald said, "You mean that not everyone can vote?"

Philon looked at her in surprise. "Well, of course not. Only people of means vote—and why shouldn't they? They take the most interest in the elections and

all the candidates come from the higher-middle-class of income. Anyway why should the people squawk? They took less and less interest in the elections.

"When the proportion of voters turning out for elections got down to thirty percent those that did turn out passed laws disenfranchising those who hadn't voted for two Presidential elections. So if things aren't being run to suit those who lost their rights to vote they've got no one to thank but themselves."

Bill MacDonald looked at his wife and said in a voice filled with incredulity, "My lord, Carol, if the people back there only knew what their careless and negligent disinterest would one day do to their country!"

Philon looked from one to the other, saying, "You sound as if you were talking about the past."

MacDonald said hurriedly, "I—er—was referring to the history books."

That night Philon did not sleep well for the morrow would be a day he'd never forget. Even to his calloused mind the dangers involved in the exploit were considerable.

In the morning he went into John's room and stood looking down at the boy, who sleepily opened his eyes.

Philon said, "I'm going to be gone from my office all day. And if anyone calls or comes to see me here at the house tell him I'm sick. If necessary I'm ordering you to swear in court that I was here all day and night. Ursula's gone for the weekend to the seashore, so I'm depending on you. Do you understand?"

John frowned in confusion. "You say you're sick and staying home all day?"

Impatience edging his words Philon went over the explanation again.

"What d'you mean 'swear in court?' What are you planning to do, Phil?" John's eyes were wide open now and full of apprehension.

"Never mind what I'm doing. Just tell anybody inquiring that I'm sick at home."

"You mean *lie*, eh?"

Phil lifted his hand, then swung, leaving the imprint of his four fingers on the boy's left cheek. "Now do you understand?"

The boy blinked back a tear and nodded wordlessly.

In the late afternoon Philon landed at Washington and under an assumed name made his way to the government building housing the big Election

Tabulator. At the technical maintenance offices Philon asked, "Is Al Brant around?"

"Nope. He doesn't come on duty until tomorrow."

At Brant's address Philon knocked on an apartment door. Footsteps approached inside and the door was opened by a medium-sized man with black tousled hair. He appeared less than happy to see Philon.

"Hello, Phil. What's on your mind?"

Philon stuck out his hand. "Al, glad to see you again. I know you're not pleased to see me but let's let bygones be bygones. Can we talk?"

Al Brant stepped back reluctantly. "Well, I guess so. I thought we'd said everything we had to say the last time."

Philon walked in and settled himself on the davenport. "Yeah, I know, Al, we had some pretty harsh words. But at least I got you out of the mess."

Brant said bitterly, "Yeah, got me out of a mess I got into helping you on one of your shady deals when I worked for you. Well, as I said before, what's on your mind?"

Philon patted his right chest saying, "Got a hundred thousand here for you, Al."

Brant's brows lifted in amazement. "A hundred thousand! What's the catch, Phil?"

Philon's voice dropped to a confidential tone. "You always were a clever man with electronics, Al, and I've got something here that's just your meat. I've been studying the design of the Election Tabulator, and I've discovered a wonderful opportunity for you and me.

"Now listen—it's possible to replace two transmitters on the main teletype trunk so that a winning percentage of the incoming votes will be totaled up for my party. Simple little job, isn't it? Worth a hundred thousand!"

For a long moment Al Brant sat and stared at Philon in cold silence. Finally, he said, "Do you know what the penalty is for jimmying the Tabulator to influence voting?"

"No."

"It's life imprisonment!" Brant got up slowly and started across the room to Philon. "I fell for your line once and got burned—and here you come again. You must think I'm a born sucker. This time I'm doing the talking. Give me the

hundred grand or I'll kill you with my bare hands!"

Philon watched him coming as if he were witness to a nightmare. He was trapped. And in this moment of snowballing fear he ceased to think. The gun in his pocket went off without conscious effort. Brant stopped, then collapsed to the floor. Panic took over Philon's mind and he fled the apartment building as rapidly as was safe.

He was almost back in the city when he tuned in a news broadcast As he listened, he sat in stunned silence. Brant had roused himself enough before he died to talk to the man who found him in his apartment. Brant had named his killer as Philon Miller. Miller felt as if he had turned to ice.

Then his mind thawed out with a rush of reassuring words. After all, why should he be worrying? He had John's word in court as a perfect alibi. Yes, everything would be all right. Everything *had* to be all right.

In the late evening Philon arrived at his house with a consuming sense of great relief, as if the very act of entering his home would protect him from anything. There was a sense of safety in the mere familiarity of the environment.

On the mail table he found a note from Ursula saying she had gone for the weekend. Philon shrugged indifferently. He was glad to have her out of the way anyhow. But John—there was the best ten thousand dollars he had ever spent. A sound investment, about to pay its first real dividend.

"*John!*" His voice echoed in the house with a disturbing hollow sound. He wet his dry lips and shouted again, "*John*—where *are* you?"

Only his echoing voice answered him. In growing fright he pounded up the escalator and rushed into John's room. It was empty. On a desk he found a message in John's neat hand—

Phil and Ursula,

For a long time I have been very unhappy living with you. I'm grateful for the food and shelter and education you've provided. But you have never given me the love and warmth that I seem to crave. The funny part of it is that I never understood my craving and what it meant until I saw how love and affection bound the MacDonald kids and their folks.

This afternoon Jimmie and Jean came over to say good-by because they said their father told them they didn't belong here—that he was taking his family back where they belonged, atomic bomb threat and all—whatever he meant by

that. After they left I got to thinking how much I'd like to go with them. So I'm leaving. Somehow I'm going to talk them into taking me with them wherever they are going. So this will have to be good-by.

John.

Philon lifted his eyes from the note and his glance strayed to the window. Dreading to look he took two slow steps and peered down the street. The sight of the empty lot on the corner paralyzed him in his tracks.

John gone! The MacDonald house gone! Gone was his perfect alibi! In Washington a dying man's words had spelled out his own death sentence.

A step at the door roused him from his horror-stricken trance. He looked up to see a detective and a policeman regarding him with cold calculation.

"What's the matter, Miller?" asked the detective. "We've punched your announcer button half a dozen times. You deaf? You better come along to Headquarters to answer some questions about your movements today."

THE PLANET SAVERS



By
MARION ZIMMER BRADLEY

BY the time I got myself all the way awake I thought I was alone. I was lying on a leather couch in a bare white room with huge windows, alternate glass-brick and clear glass. Beyond the clear windows was a view of snow-peaked mountains which turned to pale shadows in the glass-brick.

Habit and memory fitted names to all these; the bare office, the orange flare of the great sun, the names of the dimming mountains. But beyond a polished glass desk, a man sat watching me. And I had never seen the man before.

He was chubby, and not young, and had ginger-colored eyebrows and a fringe of ginger-colored hair around the edges of a forehead which was otherwise quite pink and bald. He was wearing a white uniform coat, and the intertwined caduceus on the pocket and on the sleeve proclaimed him a member of the Medical Service attached to the Civilian HQ of the Terran Trade City.

I didn't stop to make all these evaluations consciously, of course. They were just part of my world when I woke up and found it taking shape around me. The familiar mountains, the familiar sun, the strange man. But he spoke to me in a friendly way, as if it were an ordinary thing to find a perfect stranger sprawled out taking a siesta in here.

"Could I trouble you to tell me your name?"



The man in the mirror was a stranger.

That was reasonable enough. If I found somebody making himself at home in my office—if I had an office—I'd ask him his name, too. I started to swing my legs to the floor, and had to stop and steady myself with one hand while the room drifted in giddy circles around me.

"I wouldn't try to sit up just yet," he remarked, while the floor calmed down again. Then he repeated, politely but insistently, "Your name?"

"Oh, yes. My name." It was—I fumbled through layers of what felt like gray fuzz, trying to lay my tongue on the most familiar of all sounds, my own name. It was—why, it was—I said, on a high rising note, "This is damn silly," and swallowed. And swallowed again. Hard.

"Calm down," the chubby man said soothingly. That was easier said than done. I stared at him in growing panic and demanded, "But, but, have I had amnesia or something?"

"Or something."

"What's my *name*?"

"Now, now, take it easy! I'm sure you'll remember it soon enough. You can answer other questions, I'm sure. How old are you?"

I answered eagerly and quickly, "Twenty-two."

The chubby man scribbled something on a card. "Interesting. In-ter-est-ing. Do you know where we are?"

I looked around the office. "In the Terran Headquarters. From your uniform, I'd say we were on Floor 8—Medical."

He nodded and scribbled again, pursing his lips. "Can you—uh—tell me what planet we are on?"

I had to laugh. "Darkover," I chuckled, "I hope! And if you want the names of the moons, or the date of the founding of the Trade City, or something—"

He gave in, laughing with me. "Remember where you were born?"

"On Samarra. I came here when I was three years old—my father was in Mapping and Exploring—" I stopped short, in shock. "He's dead!"

"Can you tell me your father's name?"

"Same as mine. Jay—Jason—" the flash of memory closed down in the middle of a word. It had been a good try, but it hadn't quite worked. The doctor said soothingly, "We're doing very well."

"You haven't told me anything," I accused. "Who are you? Why are you asking me all these questions?"

He pointed to a sign on his desk. I scowled and spelled out the letters. "Randall ... Forth ... Director ... Department ..." and Dr. Forth made a note. I said aloud, "It is—*Doctor* Forth, isn't it?"

"Don't you know?"

I looked down at myself, and shook my head. "Maybe *I'm* Doctor Forth," I said, noticing for the first time that I was also wearing a white coat with the caduceus emblem of Medical. But it had the wrong feel, as if I were dressed in somebody else's clothes. *I* was no doctor, was I? I pushed back one sleeve slightly, exposing a long, triangular scar under the cuff. Dr. Forth—by now I was sure *he* was Dr. Forth—followed the direction of my eyes.

"Where did you get the scar?"

"Knife fight. One of the bands of those-who-may-not-enter-cities caught us on the slopes, and we—" the memory thinned out again, and I said

despairingly, "It's all confused! What's the matter? Why am I up on Medical? Have I had an accident? Amnesia?"

"Not exactly. I'll explain."

I got up and walked to the window, unsteadily because my feet wanted to walk slowly while I felt like bursting through some invisible net and striding there at one bound. Once I got to the window the room stayed put while I gulped down great breaths of warm sweetish air. I said, "I could use a drink."

"Good idea. Though I don't usually recommend it." Forth reached into a drawer for a flat bottle; poured tea-colored liquid into a throwaway cup. After a minute he poured more for himself. "Here. And sit down, man. You make me nervous, hovering like that."

I didn't sit down. I strode to the door and flung it open. Forth's voice was low and unhurried.

"What's the matter? You can go out, if you want to, but won't you sit down and talk to me for a minute? Anyway, where do you want to go?"

The question made me uncomfortable. I took a couple of long breaths and came back into the room. Forth said, "Drink this," and I poured it down. He refilled the cup unasked, and I swallowed that too and felt the hard lump in my middle begin to loosen up and dissolve.

Forth said, "Claustrophobia too. Typical," and scribbled on the card some more. I was getting tired of that performance. I turned on him to tell him so, then suddenly felt amused—or maybe it was the liquor working in me. He seemed such a funny little man, shutting himself up inside an office like this and talking about claustrophobia and watching me as if I were a big bug. I tossed the cup into a disposal.

"Isn't it about time for a few of those explanations?"

"If you think you can take it. How do you feel now?"

"Fine." I sat down on the couch again, leaning back and stretching out my long legs comfortably. "What did you put in that drink?"

He chuckled. "Trade secret. Now; the easiest way to explain would be to let you watch a film we made yesterday."

"To watch—" I stopped. "It's your time we're wasting."

He punched a button on the desk, spoke into a mouthpiece. "Surveillance?

Give us a monitor on—" he spoke a string of incomprehensible numbers, while I lounged at ease on the couch. Forth waited for an answer, then touched another button and steel louvers closed noiselessly over the windows, blacking them out. I rose in sudden panic, then relaxed as the room went dark. The darkness felt oddly more normal than the light, and I leaned back and watched the flickers clear as one wall of the office became a large visionscreen. Forth came and sat beside me on the leather couch, but in the picture Forth was there, sitting at his desk, watching another man, a stranger, walk into the office.

Like Forth, the newcomer wore a white coat with the caduceus emblems. I disliked the man on sight. He was tall and lean and composed, with a dour face set in thin lines. I guessed that he was somewhere in his thirties. Dr.-Forth-in-the-film said, "Sit down, Doctor," and I drew a long breath, overwhelmed by a curious, certain sensation.

I have been here before. I have seen this happen before.

(And curiously formless I felt. I sat and watched, and I knew I was watching, and sitting. But it was in that dreamlike fashion, where the dreamer at once watches his visions and participates in them....)

"Sit down, Doctor," Forth said, "did you bring in the reports?"

Jay Allison carefully took the indicated seat, poised nervously on the edge of the chair. He sat very straight, leaning forward only a little to hand a thick folder of papers across the desk. Forth took it, but didn't open it. "What do you think, Dr. Allison?"

"There is no possible room for doubt." Jay Allison spoke precisely, in a rather high-pitched and emphatic tone. "It follows the statistical pattern for all recorded attacks of 48-year fever ... by the way, sir, haven't we any better name than that for this particular disease? The term '48-year fever' connotes a fever of 48 years duration, rather than a pandemic recurring every 48 years."

"A fever that lasted 48 years would be quite a fever," Dr. Forth said with the shadow of a grim smile. "Nevertheless that's the only name we have so far. Name it and you can have it. Allison's disease?"

Jay Allison greeted this pleasantry with a repressive frown. "As I understand it, the disease cycle seems to be connected somehow with the once-every-48-years conjunction of the four moons, which explains why the

Darkovans are so superstitious about it. The moons have remarkably eccentric orbits—I don't know anything about that part, I'm quoting Dr. Moore. If there's an animal vector to the disease, we've never discovered it. The pattern runs like this; a few cases in the mountain districts, the next month a hundred-odd cases all over this part of the planet. Then it skips exactly three months without increase. The next upswing puts the number of reported cases in the thousands, and three months after *that*, it reaches real pandemic proportions and decimates the entire human population of Darkover."

"That's about it," Forth admitted. They bent together over the folder, Jay Allison drawing back slightly to avoid touching the other man.

Forth said, "We Terrans have had a Trade compact on Darkover for a hundred and fifty-two years. The first outbreak of this 48-year fever killed all but a dozen men out of three hundred. The Darkovans were worse off than we were. The last outbreak wasn't quite so bad, but it was bad enough, I've heard. It has an 87 per cent mortality—for humans, that is. I understand the trailmen don't die of it."

"The Darkovans call it the trailmen's fever, Dr. Forth, because the trailmen are virtually immune to it. It remains in their midst as a mild ailment taken by children. When it breaks out into the virulent form every 48 years, most of the trailmen are already immune. I took the disease myself as a child—maybe you heard?"

Forth nodded. "You may be the only Terran ever to contract the disease and survive."

"The trailmen incubate the disease," Jay Allison said. "I should think the logical thing would be to drop a couple of hydrogen bombs on the trail cities—and wipe it out for good and all."

(Sitting on the Sofa in Forth's dark office, I stiffened with such fury that he shook my shoulder and muttered, "Easy, there, man!")

Dr. Forth, on the screen, looked annoyed, and Jay Allison said, with a grimace of distaste, "I didn't mean that literally. But the trailmen are not human. It wouldn't be genocide, just an exterminator's job. A public health measure."

Forth looked shocked as he realized that the younger man meant what he

was saying. He said, "Galactic center would have to rule on whether they're dumb animals or intelligent non-humans, and whether they're entitled to the status of a civilization. All precedent on Darkover is toward recognizing them as men—and good God, Jay, you'd probably be called as a witness for the defense! How can you say they're not human after your experience with them? Anyway, by the time their status was finally decided, half of the recognizable humans on Darkover would be dead. We need a better solution than that."

He pushed his chair back and looked out the window.

"I won't go into the political situation," he said, "you aren't interested in Terran Empire politics, and I'm no expert either. But you'd have to be deaf, dumb and blind not to know that Darkover's been playing the immovable object to the irresistible force. The Darkovans are more advanced in some of the non-causative sciences than we are, and until now, they wouldn't admit that Terra had a thing to contribute. However—and this is the big however—they do know, and they're willing to admit, that our medical sciences are better than theirs."

"Theirs being practically non-existent."

"Exactly—and this could be the first crack in the barrier. You may not realize the significance of this, but the Legate received an offer from the Hasturs themselves."

Jay Allison murmured, "I'm to be impressed?"

"On Darkover you'd damn well better be impressed when the Hasturs sit up and take notice."

"I understand they're telepaths or something—"

"Telepaths, psychokinetics, parapsychs, just about anything else. For all practical purposes they're the Gods of Darkover. And one of the Hasturs—a rather young and unimportant one, I'll admit, the old man's grandson—came to the Legate's office, in person, mind you. He offered, if the Terran Medical would help Darkover lick the trailmen's fever, to coach selected Terran men in matrix mechanics."

"Good Lord," Jay said. It was a concession beyond Terra's wildest dreams; for a hundred years they had tried to beg, buy or steal some knowledge of the mysterious science of matrix mechanics—that curious discipline which could turn matter into raw energy, and vice versa, without any intermediate stages and

without fission by-products. Matrix mechanics had made the Darkovans virtually immune to the lure of Terra's advanced technologies.

Jay said, "Personally I think Darkovan science is over-rated. But I can see the propaganda angle—"

"Not to mention the humanitarian angle of healing—"

Jay Allison gave one of his cold shrugs. "The real angle seems to be this; *can* we cure the 48-year fever?"

"Not yet. But we have a lead. During the last epidemic, a Terran scientist discovered a blood fraction containing antibodies against the fever—in the trailmen. Isolated to a serum, it might reduce the virulent 48-year epidemic form to the mild form again. Unfortunately, he died himself in the epidemic, without finishing his work, and his notebooks were overlooked until this year. We have 18,000 men, and their families, on Darkover now, Jay. Frankly, if we lose too many of them, we're going to have to pull out of Darkover—the big brass on Terra will write off the loss of a garrison of professional traders, but not of a whole Trade City colony. That's not even mentioning the prestige we'll lose if our much-vaunted Terran medical sciences can't save Darkover from an epidemic. We've got exactly five months. We can't synthesize a serum in that time. We've got to appeal to the trailmen. And that's why I called you up here. You know more about the trailmen than any living Terran. You ought to. You spent eight years in a Nest."

(In Forth's darkened office I sat up straighter, with a flash of returning memory. Jay Allison, I judged, was several years older than I, but we had one thing in common; this cold fish of a man shared with myself that experience of marvelous years spent in an alien world!)

Jay Allison scowled, displeased. "That was years ago. I was hardly more than a baby. My father crashed on a Mapping expedition over the Hellers—God only knows what possessed him to try and take a light plane over those crosswinds. I survived the crash by the merest chance, and lived with the trailmen—so I'm told—until I was thirteen or fourteen. I don't remember much about it. Children aren't particularly observant."

Forth leaned over the desk, staring. "You speak their language, don't you?"

"I used to. I might remember it under hypnosis, I suppose. Why? Do you want me to translate something?"

"Not exactly. We were thinking of sending you on an expedition to the trailmen themselves."

(In the darkened office, watching Jay's startled face, I thought; God, what an adventure! I wonder—I wonder if they want me to go with him?)

Forth was explaining: "It would be a difficult trek. You know what the Hellers are like. Still, you used to climb mountains, as a hobby, before you went into Medical—"

"I outgrew the childishness of hobbies many years ago, sir," Jay said stiffly.

"We'd get you the best guides we could, Terran and Darkovan. But they couldn't do the one thing you can do. You *know* the trailmen, Jay. You might be able to persuade them to do the one thing they've never done before."

"What's that?" Jay Allison sounded suspicious.

"Come out of the mountains. Send us volunteers—blood donors—we might, if we had enough blood to work on, be able to isolate the right fraction, and synthesize it, in time to prevent the epidemic from really taking hold. Jay, it's a tough mission and it's dangerous as all hell, but somebody's got to do it, and I'm afraid you're the only qualified man."

"I like my first suggestion better. Bomb the trailmen—and the Hellers—right off the planet." Jay's face was set in lines of loathing, which he controlled after a minute, and said, "I—I didn't mean that. Theoretically I can see the necessity, only—" he stopped and swallowed.

"Please say what you were going to say."

"I wonder if I am as well qualified as you think? No—don't interrupt—I find the natives of Darkover distasteful, even the humans. As for the trailmen —"

(I was getting mad and impatient. I whispered to Forth in the darkness, "Shut the damn film off! You couldn't send *that* guy on an errand like *that*! I'd rather—"

(Forth snapped, "Shut up and listen!"

(I shut up and the film continued to repeat.)

Jay Allison was not acting. He was pained and disgusted. Forth wouldn't let him finish his explanation of why he had refused even to teach in the Medical college established for Darkovans by the Terran empire. He interrupted, and he sounded irritated.

"We know all that. It evidently never occurred to you, Jay, that it's an inconvenience to us—that all this vital knowledge should lie, purely by accident, in the hands of the one man who's too damned stubborn to use it?"

Jay didn't move an eyelash, where I would have squirmed, "I have always been aware of that, Doctor."

Forth drew a long breath. "I'll concede you're not suitable at the moment, Jay. But what do you know of applied psychodynamics?"

"Very little, I'm sorry to say." Allison didn't sound sorry, though. He sounded bored to death with the whole conversation.

"May I be blunt—and personal?"

"Please do. I'm not at all sensitive."

"Basically, then, Doctor Allison, a person as contained and repressed as yourself usually has a clearly defined subsidiary personality. In neurotic individuals this complex of personality traits sometimes splits off, and we get a syndrome known as multiple, or alternate personality."

"I've scanned a few of the classic cases. Wasn't there a woman with four separate personalities?"

"Exactly. However, you aren't neurotic, and ordinarily there would not be the slightest chance of your repressed alternate taking over your personality."

"Thank you," Jay murmured ironically, "I'd be losing sleep over that."

"Nevertheless I presume you *do* have such a subsidiary personality, although he would normally never manifest. This subsidiary—let's call him Jay_2—would embody all the characteristics which you repress. He would be gregarious, where you are retiring and studious; adventurous where you are cautious; talkative while you are taciturn; he would perhaps enjoy action for its own sake, while you exercise faithfully in the gymnasium only for your health's sake; and he might even remember the trailmen with pleasure rather than dislike."

"In short—a blend of all the undesirable characteristics?"

"One could put it that way. Certainly he would be a blend of all the

characteristics which you, Jay_1, *consider* undesirable. But—if released by hypnotism and suggestion, he might be suitable for the job in hand."

"But how do you know I actually have such an—alternate?"

"I don't. But it's a good guess. Most repressed—" Forth coughed and amended, "most *disciplined* personalities possess such a suppressed secondary personality. Don't you occasionally—rather rarely—find yourself doing things which are entirely out of character for you?"

I could almost feel Allison taking it in, as he confessed, "Well—yes. For instance—the other day—although I dress conservatively at all times—" he glanced at his uniform coat, "I found myself buying—" he stopped again and his face went an unlovely terra-cotta color as he finally mumbled, "a flowered red sports shirt."

Sitting in the dark I felt vaguely sorry for the poor gawk, disturbed by, ashamed of the only human impulses he ever had. On the screen Allison frowned fiercely, "A crazy impulse."

"You could say that, or say it was an action of the suppressed Jay_2. How about it, Allison? You may be the only Terran on Darkover, maybe the only human, who could get into a trailman's Nest without being murdered."

"Sir—as a citizen of the Empire, I don't have any choice, do I?"

"Jay, look," Forth said, and I felt him trying to reach through the barricade and touch, really touch that cold contained young man, "we couldn't *order* any man to do anything like this. Aside from the ordinary dangers, it could destroy your personal balance, maybe permanently. I'm asking you to volunteer something above and beyond the call of duty. Man to man—what do you say?"

I would have been moved by his words. Even at secondhand I was moved by them. Jay Allison looked at the floor, and I saw him twist his long well-kept surgeon's hands and crack the knuckles with an odd gesture. Finally he said, "I haven't any choice either way, Doctor. I'll take the chance. I'll go to the trailmen."

The screen went dark again and Forth flicked the light on. He said, "Well?"

I gave it back, in his own intonation, "Well?" and was exasperated to find that I was twisting my own knuckles in the nervous gesture of Allison's painful decision. I jerked them apart and got up.

"I suppose it didn't work, with that cold fish, and you decided to come to me instead? Sure, *I'll* go to the trailmen for you. Not with that Allison—I wouldn't go anywhere with that guy—but I speak the trailmen's language, and without hypnosis either."

Forth was staring at me. "So you've remembered that?"

"Hell, yes," I said, "my dad crashed in the Hellers, and a band of trailmen found me, half dead. I lived there until I was about fifteen, then their Old-One decided I was too human for them, and they took me out through Dammerung Pass and arranged to have me brought here. Sure, it's all coming back now. I spent five years in the Spacemen's Orphanage, then I went to work taking Terran tourists on hunting parties and so on, because I liked being around the mountains. I—" I stopped. Forth was staring at me.

"You think you'd like this job?"

"It would be tough," I said, considering. "The People of the Sky—" (using the trailmen's name for themselves) "—don't like outsiders, but they might be persuaded. The worst part would be getting there. The plane, or the 'copter, isn't built that can get through the crosswinds around the Hellers and land inside them. We'd have to go on foot, all the way from Carthon. I'd need professional climbers—mountaineers."

"Then you don't share Allison's attitude?"

"Dammit, don't insult me!" I discovered that I was on my feet again, pacing the office restlessly. Forth stared and mused aloud, "What's personality anyway? A mask of emotions, superimposed on the body and the intellect. Change the point of view, change the emotions and desires, and even with the same body and the same past experiences, you have a new man."

I swung round in mid-step. A new and terrible suspicion, too monstrous to name, was creeping up on me. Forth touched a button and the face of Jay Allison, immobile, appeared on the visionscreen. Forth put a mirror in my hand. He said, "Jason Allison, look at yourself."

I looked.

"No," I said. And again, "No. No. No."

Forth didn't argue. He pointed, with a stubby finger. "Look—" he moved the finger as he spoke, "height of forehead. Set of cheekbones. Your eyebrows

look different, and your mouth, because the expression is different. But bony structure—the nose, the chin—"

I heard myself make a queer sound; dashed the mirror to the floor. He grabbed my forearm. "Steady, man!"

I found a scrap of my voice. It didn't sound like Allison's. "Then I'm—Jay_2? Jay Allison with amnesia?"

"Not exactly." Forth mopped his forehead with an immaculate sleeve and it came away damp with sweat, "No—*not* Jay Allison as I know him!" He drew a long breath. "And sit down. Whoever you are, sit *down*!"

I sat. Gingerly. Not sure.

"But the man Jay might have been, given a different temperamental bias. I'd say—the man Jay Allison started out to be. The man he *refused* to be. Within his subconscious, he built up barriers against a whole series of memories, and the subliminal threshold—"

"Doc, I don't understand the psycho talk."

Forth stared. "And you do remember the trailmen's language. I thought so. Allison's personality is suppressed in you, as yours was in him."

"One thing, Doc. I don't know a thing about blood fractions or epidemics. My half of the personality didn't study medicine." I took up the mirror again and broodingly studied the face there. The high thin cheeks, high forehead shaded by coarse dark hair which Jay Allison had slicked down now heavily rumpled. I still didn't think I looked anything like the doctor. Our voices were nothing alike either; his had been pitched rather high, falsetto. My own, as nearly as I could judge, was a full octave deeper, and more resonant. Yet they issued from the same vocal chords, unless Forth was having a reasonless, macabre joke.

"Did I honest-to-God study medicine? It's the last thing I'd think about. It's an honest trade, I guess, but I've never been that intellectual."

"You—or rather, Jay Allison is a specialist in Darkovan parasitology, as well as a very competent surgeon." Forth was sitting with his chin in his hands, watching me intently. He scowled and said, "If anything, the physical change is more startling than the other. I wouldn't have recognized you."

"That tallies with me. I don't recognize myself." I added, "—and the queer thing is, I didn't even *like* Jay Allison, to put it mildly. If he—I can't say *he*, can

I?"

"I don't know why not. You're no more Jay Allison than I am. For one thing, you're younger. Ten years younger. I doubt if any of his friends—if he had any—would recognize you. You—it's ridiculous to go on calling you Jay_2. What should I call you?"

"Why should I care? Call me Jason."

"Suits you," Forth said enigmatically. "Look, then, Jason. I'd like to give you a few days to readjust to your new personality, but we are really pressed for time. Can you fly to Carthon tonight? I've hand-picked a good crew for you, and sent them on ahead. You'll meet them there. You'll find them competent."

I stared at him. Suddenly the room oppressed me and I found it hard to breathe. I said in wonder, "You were pretty sure of yourself, weren't you?"

Forth just looked at me, for what seemed a long time. Then he said, in a very quiet voice, "No. I wasn't sure at all. But if you didn't turn up, and I couldn't talk Jay into it, I'd have had to try it myself."

Jason Allison, Junior, was listed on the directory of the Terran HQ as "Suite 1214, Medical Residence Corridor." I found the rooms without any trouble, though an elderly doctor stared at me rather curiously as I barged along the quiet hallway. The suite—bedroom, minuscule sitting-room, compact bath—depressed me; clean, closed-in and neutral as the man who owned them, I rummaged them restlessly, trying to find some scrap of familiarity to indicate that I had lived here for the past eleven years.

Jay Allison was thirty-four years old. I had given my age, without hesitation, as 22. There were no obvious blanks in my memory; from the moment Jay Allison had spoken of the trailmen, my past had rushed back and stood, complete to yesterday's supper (only had I eaten that supper twelve years ago)? I remembered my father, a lined silent man who had liked to fly solitary, taking photograph after photograph from his plane for the meticulous work of Mapping and Exploration. He'd liked to have me fly with him and I'd flown over virtually every inch of the planet. No one else had ever dared fly over the Hellers, except the big commercial spacecraft that kept to a safe altitude. I vaguely

remembered the crash and the strange hands pulling me out of the wreckage and the weeks I'd spent, broken-bodied and delirious, gently tended by one of the red-eyed, twittering women of the trailmen. In all I had spent eight years in the Nest, which was not a nest at all but a vast sprawling city built in the branches of enormous trees. With the small and delicate humanoids who had been my playfellows, I had gathered the nuts and buds and trapped the small arboreal animals they used for food, taken my share at weaving clothing from the fibres of parasite plants cultivated on the stems, and in all those eight years I had set foot on the ground less than a dozen times, even though I had travelled for miles through the tree-roads high above the forest floor.

Then the Old-One's painful decision that I was too alien for them, and the difficult and dangerous journey my trailmen foster-parents and foster-brothers had undertaken, to help me out of the Hellers and arrange for me to be taken to the Trade City. After two years of physically painful and mentally rebellious readjustment to daytime living, the owl-eyed trailmen saw best, and lived largely, by moonlight, I had found a niche for myself, and settled down. But all of the later years (after Jay Allison had taken over, I supposed, from a basic pattern of memory common to both of us) had vanished into the limbo of the subconscious.

A bookrack was crammed with large microcards; I slipped one into the viewer, with a queer sense of spying, and found myself listening apprehensively to hear that measured step and Jay Allison's falsetto voice demanding what the hell I was doing, meddling with his possessions. Eye to the viewer, I read briefly at random, something about the management of compound fracture, then realized I had understood exactly three words in a paragraph. I put my fist against my forehead and heard the words echoing there emptily; "laceration ... primary efflusion ... serum and lymph ... granulation tissue...." I presumed that the words meant something and that I once had known what. But if I had a medical education, I didn't recall a syllable of it. I didn't know a fracture from a fraction.

In a sudden frenzy of impatience I stripped off the white coat and put on the first shirt I came to, a crimson thing that hung in the line of white coats like an exotic bird in snow country. I went back to rummaging the drawers and bureaus. Carelessly shoved in a pigeonhole I found another microcard that looked

familiar; and when I slipped it mechanically into the viewer it turned out to be a book on mountaineering which, oddly enough, I remembered buying as a youngster. It dispelled my last, lingering doubts. Evidently I had bought it before the personalities had forked so sharply apart and separated, Jason from Jay. I was beginning to believe. Not to accept. Just to believe it had happened. The book looked well-thumbed, and had been handled so much I had to baby it into the slot of the viewer.

Under a folded pile of clean underwear I found a flat half-empty bottle of whiskey. I remembered Forth's words that he'd never seen Jay Allison drink, and suddenly I thought, "The fool!" I fixed myself a drink and sat down, idly scanning over the mountaineering book.

Not till I'd entered medical school, I suspected, did the two halves of me fork so strongly apart ... so strongly that there had been days and weeks and, I suspected, years where Jay Allison had kept me prisoner. I tried to juggle dates in my mind, looked at a calendar, and got such a mental jolt that I put it face-down to think about when I was a little drunker.

I wondered if my detailed memories of my teens and early twenties were the same memories Jay Allison looked back on. I didn't think so. People forget and remember selectively. Week by week, then, and year by year, the dominant personality of Jay had crowded me out; so that the young rowdy, more than half Darkovan, loving the mountains, half-homesick for a non-human world, had been drowned in the chilly, austere young medical student who lost himself in his work. But I, Jason—I had always been the watcher behind, the person Jay Allison dared not be? Why was he past thirty—and I just 22?

A ringing shattered the silence; I had to hunt for the intercom on the bedroom wall. I said, "Who is it?" and an unfamiliar voice demanded, "Dr. Allison?"

I said automatically, "Nobody here by that name," and started to put back the mouthpiece. Then I stopped and gulped and asked, "Is that you, Dr. Forth?"

It was, and I breathed again. I didn't even want to think about what I'd say if somebody else had demanded to know why in the devil I was answering Dr. Allison's private telephone. When Forth had finished, I went to the mirror, and stared, trying to see behind my face the sharp features of that stranger, *Doctor*

Jason Allison. I delayed, even while I was wondering what few things I should pack for a trip into the mountains and the habit of hunting parties was making mental lists about heat-socks and windbreakers. The face that looked at me was a young face, unlined and faintly freckled, the same face as always except that I'd lost my suntan; Jay Allison had kept me indoors too long. Suddenly I struck the mirror lightly with my fist.

"The hell with you, Dr. Allison," I said, and went to see if he had kept any clothes fit to pack.

Dr. Forth was waiting for me in the small skyport on the roof, and so was a small 'copter, one of the fairly old ones assigned to Medical Service when they were too beat-up for services with higher priority. Forth took one startled stare at my crimson shirt, but all he said was, "Hello, Jason. Here's something we've got to decide right away; do we tell the crew who you really are?"

I shook my head emphatically. "I'm not Jay Allison; I don't want his name or his reputation. Unless there are men on the crew who know Allison by sight —"

"Some of them do, but I don't think they'd recognize you."

"Tell them I'm his twin brother," I said humorlessly.

"That wouldn't be necessary. There's not enough resemblance." Forth raised his head and beckoned to a man who was doing something near the 'copter. He said under his breath, "You'll see what I mean," as the man approached.

He wore the uniform of Spaceforce—black leather with a little rainbow of stars on his sleeve meaning he'd seen service on a dozen different planets, a different colored star for each one. He wasn't a young man, but on the wrong side of fifty, seamed and burly and huge, with a split lip and weathered face. I liked his looks. We shook hands and Forth said, "This is our man, Kendricks. He's called Jason, and he's an expert on the trailmen. Jason, this is Buck Kendricks."

"Glad to know you, Jason." I thought Kendricks looked at me half a second more than necessary. "The 'copter's ready. Climb in, Doc—you're going as far as Carthon, aren't you?"

We put on zippered windbreaks and the 'copter soared noiselessly into the

pale crimson sky. I sat beside Forth, looking down through pale lilac clouds at the pattern of Darkover spread below me.

"Kendricks was giving me a funny eye, Doc. What's biting him?"

"He has known Jay Allison for eight years," Forth said quietly, "and he hasn't recognized you yet."

But we let it ride at that, to my great relief, and didn't talk any more about me at all. As we flew under silent whirring blades, turning our backs on the settled country which lay near the Trade City, we talked about Darkover itself. Forth told me about the trailmen's fever and managed to give me some idea about what the blood fraction was, and why it was necessary to persuade fifty or sixty of the humanoids to return with me, to donate blood from which the antibody could be, first isolated, then synthesised.

It would be a totally unheard-of thing, if I could accomplish it. Most of the trailmen never touched ground in their entire lives, except when crossing the passes above the snow line. Not a dozen of them, including my foster-parents who had so painfully brought me out across Dammerung, had ever crossed the ring of encircling mountains that walled them away from the rest of the planet. Humans sometimes penetrated the lower forests in search of the trailmen. It was one-way traffic. The trailmen never came in search of *them*.

We talked, too, about some of those humans who had crossed the mountains into trailmen country—those mountains profanely dubbed the Hellers by the first Terrans who had tried to fly over them in anything lower or slower than a spaceship. (The Darkovan name for the Hellers was even more explicit, and even in translation, unrepeatable.)

"What about this crew you picked? They're not Terrans?"

Forth shook his head. "It would be murder to send anyone recognizably Terran into the Hellers. You know how the trailmen feel about outsiders getting into their country." I knew. Forth continued, "Just the same, there will be two Terrans with you."

"They don't know Jay Allison?" I didn't want to be burdened with anyone—not anyone—who would know me, or expect me to behave like my forgotten other self.

"Kendricks knows you," Forth said, "but I'm going to be perfectly truthful. I

never knew Jay Allison well, except in line of work. I know a lot of things—from the past couple of days—which came out during the hypnotic sessions, which he'd never have dreamed of telling me, or anyone else, consciously. And that comes under the heading of a professional confidence—even from you. And for that reason, I'm sending Kendricks along—and you're going to have to take the chance he'll recognize you. Isn't that Carthon down there?"

Carthon lay nestled under the outlying foothills of the Hellers, ancient and sprawling and squatty, and burned brown with the dust of five thousand years. Children ran out to stare at the 'copter as we landed near the city; few planes ever flew low enough to be seen, this near the Hellers.

Forth had sent his crew ahead and parked them in an abandoned huge place at the edge of the city which might once have been a warehouse or a ruined palace. Inside there were a couple of trucks, stripped down to framework and flatbed like all machinery shipped through space from Terra. There were pack animals, dark shapes in the gloom. Crates were stacked up in an orderly untidiness, and at the far end a fire was burning and five or six men in Darkovan clothing—loose sleeved shirts, tight wrapped breeches, low boots—were squatting around it, talking. They got up as Forth and Kendricks and I walked toward them, and Forth greeted them clumsily, in bad accented Darkovan, then switched to Terran Standard, letting one of the men translate for him.

Forth introduced me simply as "Jason," after the Darkovan custom, and I looked the men over, one by one. Back when I'd climbed for fun, I'd liked to pick my own men; but whoever had picked this crew must have known his business.

Three were mountain Darkovans, lean swart men enough alike to be brothers; I learned after a while that they actually were brothers, Hjalmar, Garin and Vardo. All three were well over six feet, and Hjalmar stood head and shoulders over his brothers, whom I never learned to tell apart. The fourth man, a redhead, was dressed rather better than the others and introduced as Lerrys Ridenow—the double name indicating high Darkovan aristocracy. He looked muscular and agile enough, but his hands were suspiciously well-kept for a mountain man, and I wondered how much experience he'd had.

The fifth man shook hands with me, speaking to Kendricks and Forth as if they were old friends. "Don't I know you from someplace, Jason?"

He looked Darkovan, and wore Darkovan clothes, but Forth had forewarned me, and attack seemed the best defense. "Aren't you Terran?"

"My father was," he said, and I understood; a situation not exactly uncommon, but ticklish on a planet like Darkover. I said carelessly, "I may have seen you around the HQ. I can't place you, though."

"My name's Rafe Scott. I thought I knew most of the professional guides on Darkover, but I admit I don't get into the Hellers much," he confessed. "Which route are we going to take?"

I found myself drawn into the middle of the group of men, accepting one of the small sweetish Darkovan cigarettes, looking over the plan somebody had scribbled down on the top of a packing case. I borrowed a pencil from Rafe and bent over the case, sketching out a rough map of the terrain I remembered so well from boyhood. I might be bewildered about blood fractions, but when it came to climbing I knew what I was doing. Rafe and Lerrys and the Darkovan brothers crowded behind me to look over the sketch, and Lerrys put a long fingernail on the route I'd indicated.

"Your elevation's pretty bad here," he said diffidently, "and on the 'Narr campaign the trailmen attacked us here, and it was bad fighting along those ledges."

I looked at him with new respect; dainty hands or not, he evidently knew the country. Kendricks patted the blaster on his hip and said grimly, "But this isn't the 'Narr campaign. I'd like to see any trailmen attack us while I have this."

"But you're not going to have it," said a voice behind us, a crisp authoritative voice. "Take off that gun, man!"

Kendricks and I whirled together, to see the speaker; a tall young Darkovan, still standing in the shadows. The newcomer spoke to me directly:

"I'm told you are Terran, but that you understand the trailmen. Surely you don't intend to carry fission or fusion weapons against them?"

And I suddenly realized that we were in Darkovan territory now, and that we must reckon with the Darkovan horror of guns or of any weapon which reaches beyond the arm's-length of the man who wields it. A simple heat-gun, to

the Darkovan ethical code, is as reprehensible as a super-cobalt planetbuster.

Kendricks protested, "We can't travel unarmed through trailmen country! We're apt to meet hostile bands of the creatures—and they're nasty with those long knives they carry!"

The stranger said calmly, "I've no objection to you, or anyone else, carrying a knife for self-defense."

"A *knife*?" Kendricks drew breath to roar. "Listen, you bug-eyed son-of-a—who do you think you are, anyway?"

The Darkovans muttered. The man in the shadows said, "Regis Hastur."

Kendricks stared pop-eyed. My own eyes could have popped, but I decided it was time for me to take charge, if I were ever going to. I rapped, "All right, this is my show. Buck, give me the gun."

He looked wrathfully at me for a space of seconds, while I wondered what I'd do if he didn't. Then, slowly, he unbuckled the straps and handed it to me, butt first.

I'd never realized quite how undressed a Spaceforce man looked without his blaster. I balanced it on my palm for a minute while Regis Hastur came out of the shadows. He was tall, and had the reddish hair and fair skin of Darkovan aristocracy, and on his face was some indefinable stamp—arrogance, perhaps, or the consciousness that the Hasturs had ruled this world for centuries long before the Terrans brought ships and trade and the universe to their doors. He was looking at me as if he approved of me, and that was one step worse than the former situation.

So, using the respectful Darkovan idiom of speaking to a superior (which he was) but keeping my voice hard, I said, "There's just one leader on any trek, Lord Hastur. On this one, I'm it. If you want to discuss whether or not we carry guns, I suggest you discuss it with me in private—and let me give the orders."

One of the Darkovans gasped. I knew I could have been mobbed. But with a mixed bag of men, I had to grab leadership quick or be relegated to nowhere. I didn't give Regis Hastur a chance to answer that, either; I said, "Come back here. I want to talk to you anyway."

He came, and I remembered to breathe. I led the way to a fairly deserted corner of the immense place, faced him and demanded, "As for you—what are

you doing here? You're not intending to cross the mountains with us?"

He met my scowl levelly. "I certainly am."

I groaned. "Why? You're the Regent's grandson. Important people don't take on this kind of dangerous work. If anything happens to you, it will be my responsibility!" I was going to have enough trouble, I was thinking, without shepherding along one of the most revered Personages on the whole damned planet! I didn't want anyone around who had to be fawned on, or deferred to, or even listened to.

He frowned slightly, and I had the unpleasant impression that he knew what I was thinking. "In the first place—it will mean something to the trailmen, won't it—to have a Hastur with you, suing for this favor?"

It certainly would. The trailmen paid little enough heed to the ordinary humans, except for considering them fair game for plundering when they came uninvited into trailman country. But they, with all Darkover, revered the Hasturs, and it was a fine point of diplomacy—if the Darkovans sent their most important leader, they might listen to him.

"In the second place," Regis Hastur continued, "the Darkovans are my people, and it's my business to negotiate for them. In the third place, I know the trailmen's dialect—not well, but I can speak it a little. And in the fourth, I've climbed mountains all my life. Purely as an amateur, but I can assure you I won't be in the way."

There was little enough I could say to that. He seemed to have covered every point—or every point but one, and he added, shrewdly, after a minute, "Don't worry; I'm perfectly willing to have you take charge. I won't claim—privilege."

I had to be satisfied with that.

Darkover is a civilized planet with a fairly high standard of living, but it is not a mechanized or a technological culture. The people don't do much mining, or build factories, and the few which were founded by Terran enterprise never were very successful; outside the Terran Trade City, machinery or modern transportation is almost unknown.

While the other men checked and loaded supplies and Rafe Scott went out to contact some friends of his and arrange for last-minute details, I sat down with Forth to memorize the medical details I must put so clearly to the trailmen.

"If we could only have kept your medical knowledge!"

"Trouble is, being a doctor doesn't suit my personality," I said. I felt absurdly light-hearted. Where I sat, I could raise my head and study the panorama of blackish-green foothills which lay beyond Carthon, and search out the stone roadways, like a tiny white ribbon, which we could follow for the first stage of the trip. Forth evidently did not share my enthusiasm.

"You know, Jason, there is one real danger—"

"Do you think I care about danger? Or are you afraid I'll turn—foolhardy?"

"Not exactly. It's not a physical danger, Jason. It's an emotional—or rather an intellectual danger."

"Hell, don't you know any language but that psycho double-talk?"

"Let me finish, Jason. Jay Allison may have been repressed, overcontrolled, but you are seriously impulsive. You lack a balance-wheel, if I could put it that way. And if you run too many risks, your buried alter-ego may come to the surface and take over in sheer self-preservation."

"In other words," I said, laughing loudly, "if I scare that Allison stuffed-shirt he may start stirring in his grave?"

Forth coughed and smothered a laugh and said that was one way of putting it. I clapped him reassuringly on the shoulder and said, "Forget it, sir. I promise to be godly, sober and industrious—but is there any law against enjoying what I'm doing?"

Somebody burst out of the warehouse-palace place, and shouted at me. "Jason? The guide is here," and I stood up, giving Forth a final grin. "Don't you worry. Jay Allison's good riddance," I said, and went back to meet the other guide they had chosen.

And I almost backed out when I saw the guide. For the guide was a woman.

She was small for a Darkovan girl, and narrowly built, the sort of body that could have been called boyish or coltish but certainly not, at first glance, feminine. Close-cut curls, blue-black and wispy, cast the faintest of shadows over a squarish sunburnt face, and her eyes were so thickly rimmed with heavy dark lashes that I could not guess their color. Her nose was snubbed and might

have looked whimsical and was instead oddly arrogant. Her mouth was wide, and her chin round, and altogether I dismissed her as not at all a pretty woman.

She held up her palm and said rather sullenly, "Kyla-Raineach, free Amazon, licensed guide."

I acknowledged the gesture with a nod, scowling. The guild of free Amazons entered virtually every masculine field, but that of mountain guide seemed somewhat bizarre even for an Amazon. She seemed wiry and agile enough, her body, under the heavy blanket-like clothing, almost as lean of hip and flat of breast as my own; only the slender long legs were unequivocally feminine.

The other men were checking and loading supplies; I noted from the corner of my eye that Regis Hastur was taking his turn heaving bundles with the rest. I sat down on some still-undisturbed sacks, and motioned her to sit.

"You've had trail experience? We're going into the Hellers through Dammerung, and that's rough going even for professionals."

She said in a flat expressionless voice, "I was with the Terran Mapping expedition to the South Polar ridge last year."

"Ever been in the Hellers? If anything happened to me, could you lead the expedition safely back to Carthon?"

She looked down at her stubby fingers. "I'm sure I could," she said finally, and started to rise. "Is that all?"

"One thing more—" I gestured to her to stay put. "Kyla, you'll be one woman among eight men—"

The snubbed nose wrinkled up; "I don't expect you to crawl into my blankets, if that's what you mean. It's not in my contract—I hope!"

I felt my face burning. Damn the girl! "It's not in mine, anyway," I snapped, "but I can't answer for seven other men, most of them mountain roughnecks!" Even as I said it I wondered why I bothered; certainly a free Amazon could defend her own virtue, or not, if she wanted to, without any help from me. I had to excuse myself by adding, "In either case you'll be a disturbing element—I don't want fights, either!"

She made a little low-pitched sound of amusement. "There's safety in numbers, and—are you familiar with the physiological effect of high altitudes on men acclimated to low ones?" Suddenly she threw back her head and the

hidden sound became free and merry laughter. "Jason, I'm a free Amazon, and that means—no, I'm not neutered, though some of us are. But you have my word, I won't create any trouble of any recognizably female variety." She stood up. "Now, if you don't mind, I'd like to check the mountain equipment."

Her eyes were still laughing at me, but curiously I didn't mind at all. There was a refreshing element in her manner.

We started that night, a curiously lopsided little caravan. The pack animals were loaded into one truck and didn't like it. We had another stripped-down truck which carried supplies. The ancient stone roads, rutted and gullied here and there with the flood-waters and silt of decades, had not been planned for any travel other than the feet of men or beasts. We passed tiny villages and isolated country estates, and a few of the solitary towers where the matrix mechanics worked alone with the secret sciences of Darkover, towers of glareless stone which sometimes shone like blue beacons in the dark.

Kendricks drove the truck which carried the animals, and was amused by it. Rafe and I took turns driving the other truck, sharing the wide front seat with Regis Hastur and the girl Kyla, while the other men found seats between crates and sacks in the back. Once while Rafe was at the wheel and the girl dozing with her coat over her face to shut out the fierce sun, Regis asked me, "What are the trailcities like?"

I tried to tell him, but I've never been good at boiling things down into descriptions, and when he found I was not disposed to talk, he fell silent and I was free to drowse over what I knew of the trailmen and their world.

Nature seems to have a sameness on all inhabited worlds, tending toward the economy and simplicity of the human form. The upright carriage, freeing the hands, the opposable thumb, the color-sensitivity of retinal rods and cones, the development of language and of lengthy parental nurture—these things seem to be indispensable to the growth of civilization, and in the end they spell *human*. Except for minor variations depending on climate or foodstuff, the inhabitant of Megaera or Darkover is indistinguishable from the Terran or Sirian; differences are mainly cultural, and sometimes an isolated culture will mutate in a strange direction or remain, atavists, somewhere halfway to the summit of the ladder of evolution—which, at least on the known planets, still reckons homo sapiens as

the most complex of nature's forms.

The trailmen were a pausing-place which had proved tenacious. When the mainstream of evolution on Darkover left the trees to struggle for existence on the ground, a few remained behind. Evolution did not cease for them, but evolved *homo arborens*; nocturnal, nystalopic humanoids who lived out their lives in the extensive forests.

The truck bumped over the bad, rutted roads. The wind was chilly—the truck, a mere conveyance for hauling, had no such refinements of luxury as windows. I jolted awake—what nonsense had I been thinking? Vague ideas about evolution swirled in my brain like burst bubbles—the trailmen? They were just the trailmen, who could explain them? Jay Allison, maybe? Rafe turned his head and asked, "Where do we pull up for the night? It's getting dark, and we have all this gear to sort!" I roused myself, and took over the business of the expedition again.

But when the trucks had been parked and a tent pitched and the pack animals unloaded and hobbled, and a start made at getting the gear together—when all this had been done I lay awake, listening to Kendricks' heavy snoring, but myself afraid to sleep. Dozing in the truck, an odd lapse of consciousness had come over me ... myself yet not myself, drowsing over thoughts I did not recognize as my own. If I slept, who would I be when I woke?

We had made our camp in the bend of an enormous river, wide and shallow and unbridged; the river Kadarin, traditionally a point of no return for humans on Darkover. The river is fed by ocean tides and we would have to wait for low water to cross. Beyond the river lay thick forests, and beyond the forests the slopes of the Hellers, rising upward and upward; and their every fold and every valley was filled to the brim with forest, and in the forests lived the trailmen.

But though all this country was thickly populated with outlying colonies and nests, it would be no use to bargain with any of them; we must deal with the Old One of the North Nest, where I had spent so many of my boyhood years.

From time immemorial, the trailmen—usually inoffensive—had kept strict boundaries marked between their lands and the lands of ground-dwelling men. They never came beyond the Kadarin. On the other hand, almost any human who ventured into their territory became, by that act, fair game for attack.

A few of the Darkovan mountain people had trade treaties with the trailmen; they traded clothing, forged metals, small implements, in return for nuts, bark for dyestuffs and certain leaves and mosses for drugs. In return, the trailmen permitted them to hunt in the forest lands without being molested. But other humans, venturing into trailman territory, ran the risk of merciless raiding; the trailmen were not bloodthirsty, and did not kill for the sake of killing, but they attacked in packs of two or three dozen, and their prey would be stripped and plundered of everything portable.

Travelling through their country would be dangerous....

The sun was high before we struck the camp. While the others were packing up the last oddments, ready for the saddle, I gave the girl Kyla the task of readying the rucksacks we'd carry after the trails got too bad even for the pack animals, and went to stand at the water's edge, checking the depth of the ford and glancing up at the smoke-hazed rifts between peak and peak.

The men were packing up the small tent we'd use in the forests, moving around with a good deal of horseplay and a certain brisk bustle. They were a good crew, I'd already discovered. Rafe and Lerrys and the three Darkovan brothers were tireless, cheerful and mountain-hardened. Kendricks, obviously out of his element, could be implicitly relied on to follow orders, and I felt that I could fall back on him. Strange as it seemed, the very fact that he was a Terran was vaguely comforting, where I'd anticipated it would be a nuisance.

The girl Kyla was still something of an unknown quantity. She was too taut and quiet, working her share but seldom contributing a word—we were not yet in mountain country. So far she was quiet and touchy with me, although she seemed natural enough with the Darkovans, and I let her alone.

"Hi, Jason, get a move on," someone shouted, and I walked back toward the clearing squinting in the sun. It hurt, and I touched my face gingerly, suddenly realizing what had happened. Yesterday, riding in the uncovered truck, and this morning, un-used to the fierce sun of these latitudes, I had neglected to take the proper precautions against exposure and my face was reddening with sunburn. I walked toward Kyla, who was cinching a final load on one of the pack-animals, which she did efficiently enough.

She didn't wait for me to ask, but sized up the situation with one amused

glance at my face. "Sunburn? Put some of this on it." She produced a tube of white stuff; I twisted at the top inexpertly, and she took it from me, squeezed the stuff out in her palm and said, "Stand still and bend down your head."

She smeared the mixture efficiently across my forehead and cheeks. It felt cold and good. I started to thank her, then broke off as she burst out laughing. "What's the matter?"

"You should see yourself!" she gurgled.

I wasn't amused. No doubt I presented a grotesque appearance, and no doubt she had the right to laugh at it, but I scowled. It hurt. Intending to put things back on the proper footing, I demanded, "Did you make up the climbing loads?"

"All except bedding. I wasn't sure how much to allow," she said. "Jason, have you eyeshades for when you get on snow?" I nodded, and she instructed me severely, "Don't forget them. Snowblindness—I give you my word—is even more unpleasant than sunburn—and *very* painful!"

"Damn it, girl, I'm not stupid!" I exploded.

She said, in her expressionless monotone again, "Then you *ought* to have known better than to get sunburnt. Here, put this in your pocket," she handed me the tube of sunburn cream, "maybe I'd better check up on some of the others and make sure they haven't forgotten." She went off without another word, leaving me with an unpleasant feeling that she'd come off best, that she considered me an irresponsible scamp.

Forth had said almost the same thing....

I told off the Darkovan brothers to urge the pack animals across the narrowest part of the ford, and gestured to Corus and Kyla to ride one on either side of Kendricks, who might not be aware of the swirling, treacherous currents of a mountain river. Rafe could not urge his edgy horse into the water; he finally dismounted, took off his boots, and led the creature across the slippery rocks. I crossed last, riding close to Regis Hastur, alert for dangers and thinking resentfully that anyone so important to Darkover's policies should not be risked on such a mission. Why, if the Terran Legate had (unthinkably!) come with us, he would be surrounded by bodyguards, secret service men and dozens of precautions against accident, assassination or misadventure.

All that day we rode upward, encamping at the furthest point we could

travel with pack animals or mounted. The next day's climb would enter the dangerous trails we must travel afoot. We pitched a comfortable camp, but I admit I slept badly. Kendricks and Lerrys and Rafe had blinding headaches from the sun and the thinness of the air; I was more used to these conditions, but I felt a sense of unpleasant pressure, and my ears rang. Regis arrogantly denied any discomfort, but he moaned and cried out continuously in his sleep until Lerrys kicked him, after which he was silent and, I feared, sleepless. Kyla seemed the least affected of any; probably she had been at higher altitudes more continuously than any of us. But there were dark circles beneath her eyes.

However, no one complained as we readied ourselves for the final last long climb upward. If we were fortunate, we could cross Dammerung before nightfall; at the very least, we should bivouac tonight very near the pass. Our camp had been made at the last level spot; we partially hobbled the pack animals so they would not stray too far, and left ample food for them, and cached all but the most necessary of light trail gear. As we prepared to start upward on the steep, narrow track—hardly more than a rabbit-run—I glanced at Kyla and stated, "We'll work on rope from the first stretch. Starting now."

One of the Darkovan brothers stared at me with contempt. "Call yourself a mountain man, Jason? Why, my little daughter could scramble up *that* track without so much as a push on her behind!"

I set my chin and glared at him. "The rocks aren't easy, and some of these men aren't used to working on rope at all. We might as well get used to it, because when we start working along the ledges, I don't want anybody who doesn't know how."

They still didn't like it, but nobody protested further until I directed the huge Kendricks to the center of the second rope. He glared viciously at the light nylon line and demanded in some apprehension, "Hadn't I better go last until I know what I'm doing? Hemmed in between the two of you, I'm apt to do something damned dumb!"

Hjalmar roared with laughter and informed him that the center place on a 3-man rope was always reserved for weaklings, novices and amateurs. I expected Kendricks' temper to flare up: the burly Spaceforce man and the Darkovan giant glared at one another, then Kendricks only shrugged and knotted the line through his belt. Kyla warned Kendricks and Lerrys about

looking down from ledges, and we started.

The first stretch was almost too simple, a clear track winding higher and higher for a couple of miles. Pausing to rest for a moment, we could turn and see the entire valley outspread below us. Gradually the trail grew steeper, in spots pitched almost at a 50-degree angle, and was scattered with gravel, loose rock and shale, so that we placed our feet carefully, leaning forward to catch at handholds and steady ourselves against rocks. I tested each boulder carefully, since any weight placed against an unsteady rock might dislodge it on somebody below. One of the Darkovan brothers—Vardo, I thought—was behind me, separated by ten or twelve feet of slack rope, and twice when his feet slipped on gravel he stumbled and gave me an unpleasant jerk. What he muttered was perfectly true; on slopes like this, where a fall wasn't dangerous anyhow, it was better to work unroped; then a slip bothered no one but the slipper. But I was finding out what I wanted to know—what kind of climbers I had to lead through the Hellers.

Along a cliff face the trail narrowed horizontally, leading across a foot-wide ledge overhanging a sheer drop of fifty feet and covered with loose shale and scrub plants. Nothing, of course, to an experienced climber—a foot-wide ledge might as well be a four-lane superhighway. Kendricks made a nervous joke about a tightrope walker, but when his turn came he picked his way securely, without losing balance. The amateurs—Lerrys Ridenow, Regis, Rafe—came across without hesitation, but I wondered how well they would have done at a less secure altitude; to a real mountaineer, a footpath is a footpath, whether in a meadow, above a two-foot drop, a thirty-foot ledge, or a sheer mountain face three miles above the first level spot.

After crossing the ledge the going was harder. A steeper trail, in places nearly imperceptible, led between thick scrub and overhanging trees, thickly forested. In spots their twisted roots obscured the trail; in others the persistent growth had thrust aside rocks and dirt. We had to make our way through tangles of underbrush which would have been nothing to a trailman, but which made our ground-accustomed bodies ache with the effort of getting over or through them; and once the track was totally blocked by a barricade of tangled dead brushwood, borne down on floodwater after a sudden thaw or cloud-burst. We had to work painfully around it over a three-hundred-foot rockslide, which we

could cross only one at a time, crab-fashion, leaning double to balance ourselves; and no one complained now about the rope.

Toward noon I had the first intimation that we were not alone on the slope.

At first it was no more than a glimpse of motion out of the corner of my eyes, the shadow of a shadow. The fourth time I saw it, I called softly to Kyla: "See anything?"

"I was beginning to think it was my eyes, or the altitude. I saw, Jason."

"Look for a spot where we can take a break," I directed. We climbed along a shallow ledge, the faint imperceptible flutters in the brushwood climbing with us on either side. I muttered to the girl, "I'll be glad when we get clear of this. At least we'll be able to see what's coming after us!"

"If it comes to a fight," she said surprisingly, "I'd rather fight on gravel than ice."

Over a rise, there was a roaring sound; Kyla swung up and balanced on a rock-wedged tree root, cupped her mouth to her hands and called, "Rapids!"

I pulled myself up to the edge of the drop and stood looking down into the narrow gully. Here the narrow track we had been following was crossed and obscured by the deep, roaring rapids of a mountain stream.

Less than twenty feet across, it tumbled in an icy flood, almost a waterfall, pitching over the lip of a crag above us. It had sliced a ravine five feet deep in the mountainside, and came roaring down with a rushing noise that made my head vibrate. It looked formidable; anyone stepping into it would be knocked off his feet in seconds, and swept a thousand feet down the mountainside by the force of the current.

Rafe scrambled gingerly over the gullied lip of the channel it had cut, and bent carefully to scoop up water in his palm and drink. "Phew, it's colder than Zandru's ninth hell. Must come straight down from a glacier!"

It did. I remembered the trail and remembered the spot. Kendricks joined me at the water's edge, and asked, "How do we get across?"

"I'm not sure," I said, studying the racing white torrent. Overhead, about twenty feet from where we clustered on the slope, the thick branches of enormous trees overhung the rapids, their long roots partially bared, gnarled and twisted by recurrent floods; and between these trees swayed one of the

queer swing-bridges of the trailmen, hanging only about ten feet above the water.

Even I had never learned to navigate one of these swing-bridges without assistance; human arms are no longer suited to brachiation. I might have managed it once; but at present, except as a desperate final expedient, it was out of the question. Rafe or Lerrys, who were lightly built and acrobatic, could probably do it as a simple stunt on the level, in a field; on a steep and rocky mountainside, where a fall might mean being dashed a thousand feet down the torrent, I doubted it. The trailmen's bridge was out ... but what other choice was there?

I beckoned to Kendricks, he being the man I was the most inclined to trust with my life at the moment, and said, "It looks uncrossable, but I think two men could get across, if they were steady on their feet. The others can hold us on ropes, in case we do get knocked down. If we can get to the opposite bank, we can stretch a fixed rope from that snub of rock—" I pointed, "and the others can cross with that. The first men over will be the only ones to run any risk. Want to try?"



The rope swung perilously, threatening
to dash her on the rocks.

I liked it better that he didn't answer right away, but went to the edge of the gully and peered down the rocky chasm. Doubtless, if we were knocked down, all seven of the others could haul us up again; but not before we'd been badly smashed on the rocks. And once again I caught that elusive shadow of movement in the brushwood; if the trailmen chose a moment when we were half-in, half-out of the rapids, we'd be ridiculously vulnerable to attack.

"We ought to be able to get a fixed rope easier than that," Hjalmar said, and took one of the spares from his rucksack. He coiled it, making a running loop on one end, and standing precariously on the lip of the rapids, sent it spinning toward the outcrop of rock we had chosen as a fixed point. "If I can get it over...."

The rope fell short, and Hjalmar reeled it in and cast the loop again. He made three more unsuccessful tries before finally, with held breath, we watched the noose settle over the rocky snub. Gently, pulling the line taut, we watched it stretch above the rapids. The knot tightened, fastened. Hjalmar grinned and let out his breath.

"There," he said, and jerked hard on the rope, testing it with a long hard pull. The rocky outcrop broke, with a sharp crack, split, and toppled entirely into the rapids, the sudden jerk almost pulling Hjalmar off his feet. The boulder rolled, with a great bouncing splash, faster and faster down the mountain, taking the rope with it.

We just stood and stared for a minute. Hjalmar swore horribly, in the unprintable filth of the mountain tongue, and his brothers joined in. "How the devil was I to know the *rock* would split off?"

"Better for it to split now than when we were depending on it," Kyla said stolidly. "I have a better idea." She was untying herself from the rope as she spoke, and knotting one of the spares through her belt. She handed the other end of the rope to Lerrys. "Hold on to this," she said, and slipped out of her blankety windbreak, standing shivering in a thin sweater. She unstrapped her boots and tossed them to me. "Now boost me on your shoulders, Hjalmar."

Too late, I guessed her intention and shouted, "No, don't try—!" But she had already clambered to an unsteady perch on the big Darkovan's shoulders and made a flying grab for the lowest loop of the trailmen's bridge. She hung there, swaying slightly and sickeningly, as the loose lianas gave to her weight.

"Hjalmar—Lerrys—haul her down!"

"I'm lighter than any of you," Kyla called shrilly, "and not hefty enough to be any use on the ropes!" Her voice quavered somewhat as she added, "—and hang on to that rope, Lerrys! If you lose it, I'll have done this for nothing!"

She gripped the loop of vine and reached, with her free hand, for the next loop. Now she was swinging out over the edge of the boiling rapids. Tight-

mouthed, I gestured to the others to spread out slightly below—not that anything would help her if she fell.

Hjalmar, watching as the woman gained the third loop—which joggled horribly to her slight weight—shouted suddenly,"Kyla, quick! The loop *beyond* —don't touch the next one! It's frayed—rotted through!"

Kyla brought her left hand up to her right on the third loop. She made a long reach, missed her grab, swung again, and clung, breathing hard, to the safe fifth loop. I watched, sick with dread. The damned girl should have told me what she intended.

Kyla glanced down and we got a glimpse of her face, glistening with the mixture of sunburn cream and sweat, drawn with effort. Her tiny swaying figure hung twelve feet above the white tumbling water, and if she lost her grip, only a miracle could bring her out alive. She hung there for a minute, jiggling slightly, then started a long back-and-forward swing. On the third forward swing she made a long leap and grabbed at the final loop.

It slipped through her fingers; she made a wild grab with the other hand, and the liana dipped sharply under her weight, raced through her fingers, and with a sharp snap, broke in two. She gave a wild shriek as it parted, and twisted her body frantically in mid-air, landing asprawl half-in, half-out of the rapids, but on the further bank. She hauled her legs up on dry land and crouched there, drenched to the waist but safe.

The Darkovans were yelling in delight. I motioned to Lerrys to make his end of the rope fast around a hefty tree-root, and shouted, "Are you hurt?" She indicated in pantomime that the thundering of the water drowned words, and bent to belay her end of the rope. In sign-language I gestured to her to make very sure of the knots; if anyone slipped, she hadn't the weight to hold us.

I hauled on the rope myself to test it, and it held fast. I slung her boots around my neck by their cords, then, gripping the fixed rope, Kendricks and I stepped into the water.

It was even icier than I expected, and my first step was nearly the last; the rush of the white water knocked me to my knees, and I floundered and would have measured my length except for my hands on the fixed rope. Buck Kendricks grabbed at me, letting go the rope to do it, and I swore at him, raging,

while we got on our feet again and braced ourselves against the onrushing current. While we struggled in the pounding waters, I admitted to myself; we could never have crossed without the rope Kyla had risked her life to fix.

Shivering, we got across and hauled ourselves out. I signalled to the others to cross two at a time, and Kyla seized my elbow. "Jason—"

"Later, dammit!" I had to shout to make myself heard over the roaring water, as I held out a hand to help Rafe get his footing on the ledge.

"This—can't—wait," she yelled, cupping her hands and shouting into my ear. I turned on her. "*What!*"

"There are—*trailmen*—on the top level—of that bridge! I saw them! They cut the loop!"

Regis and Hjalmar came struggling across last; Regis, lightly-built, was swept off his feet and Hjalmar turned to grab him, but I shouted to him to keep clear—they were still roped together and if the ropes fouled we might drown someone. Lerrys and I leaped down and hauled Regis clear; he coughed, spitting icy water, drenched to the skin.

I motioned to Lerrys to leave the fixed rope, though I had little hope that it would be there when we returned, and looked quickly around, debating what to do. Regis and Rafe and I were wet clear through; the others to well above the knee. At this altitude, this was dangerous, although we were not yet high enough to worry about frostbite. Trailmen or no trailmen, we must run the lesser risk of finding a place where we could kindle a fire and dry out.

"Up there—there's a clearing," I said briefly, and hurried them along.

It was hard climbing now, on rock, and there were places where we had to scrabble for handholds, and flatten ourselves out against an almost sheer wall. The keen wind rose as we climbed higher, whining through the thick forest, soughing in the rocky outcrops, and biting through our soaked clothing with icy teeth. Kendricks was having hard going now, and I helped him as much as I could, but I was aching with cold. We gained the clearing, a small bare spot on a lesser peak, and I directed the two Darkovan brothers who were the driest to gather dry brushwood and get a fire going. It was hardly near enough sunset to camp; but by the time we were dry enough to go on safely, it would be, so I gave orders to get the tent up, then rounded angrily on Kyla.

"See here, another time don't try any dangerous tricks unless you're ordered to!"

"Go easy on her," Regis Hastur interceded, "we'd never have crossed without the fixed rope. Good work, girl."

"You keep out of this!" I snapped. It was true, yet resentment boiled in me as Kyla's plain sullen face glowed under the praise from the Hastur.

The fact was—I admitted it grudgingly—a lightweight like Kyla ran less risk on an acrobat's bridge than in that kind of roaring current. That did not lessen my annoyance; and Regis Hastur's interference, and the foolish grin on the girl's face, made me boil over.

I wanted to question her further about the sight of trailmen on the bridge, but decided against it. We had been spared attack on the rapids, so it wasn't impossible that a group, not hostile, was simply watching our progress—maybe even aware that we were on a peaceful mission.

But I didn't believe it for a minute. If I knew anything about the trailmen, it was this—one could not judge them by human standards at all. I tried to decide what I would have done, as a trailman, but my brain wouldn't run that way at the moment.

The Darkovan brothers had built up the fire with a thoroughly reckless disregard of watching eyes. It seemed to me that the morale and fitness of the shivering crew was of more value at the moment than caution; and around the roaring fire, feeling my soaked clothes warming to the blaze and drinking boiling hot tea from a mug, it seemed that we were right. Optimism reappeared; Kyla, letting Hjalmar dress her hands which had been rubbed raw by the slipping lianas, made jokes with the men about her feat of acrobatics.

We had made camp on the summit of an outlying arm of the main ridge of the Hellers, and the whole massive range lay before our eyes, turned to a million colors in the declining sun. Green and turquoise and rose, the mountains were even more beautiful than I remembered. The shoulder of the high slope we had just climbed had obscured the real mountain massif from our sight, and I saw Kendricks' eyes widen as he realized that this high summit we had just mastered was only the first step of the task which lay before us. The real ridge rose ahead, thickly forested on the lower slopes, then strewn with rock and granite like the landscape of an airless, deserted moon. And above the

rock, there were straight walls capped with blinding snow and ice. Down one peak a glacier flowed, a waterfall, a cascade shockingly arrested in motion. I murmured the trailman's name for the mountain, aloud, and translated it for the others:

"The Wall Around the World."

"Good name for it," Lerrys murmured, coming with his mug in his hand to look at the mountain. "Jason, the big peak there has never been climbed, has it?"

"I can't remember." My teeth were chattering and I went back toward the fire. Regis surveyed the distant glacier and murmured, "It doesn't look too bad. There could be a route along that western *arête*—Hjalmar, weren't you with the expedition that climbed and mapped High Kimbi?"

The giant nodded, rather proudly. "We got within a hundred feet of the top, then a snowstorm came up and we had to turn back. Some day we'll tackle the Wall Around the World—it's been tried, but no one ever climbed the peak."

"No one ever will," Lerrys stated positively, "There's two hundred feet of sheer rock cliff, Prince Regis, you'd need wings to get up. And there's the avalanche ledge they call Hell's Alley—"

Kendricks broke in irritably, "I don't care whether it's ever been climbed or ever will be climbed, we're not going to climb it now!" He stared at me and added, "I hope!"

"We're not." I was glad of the interruption. If the youngsters and amateurs wanted to amuse themselves plotting hypothetical attacks on unclimbable sierras, that was all very well, but it was, if nothing worse, a great waste of time. I showed Kendricks a notch in the ridge, thousands of feet lower than the peaks, and well-sheltered from the icefalls on either side.

"That's Dammerung; we're going through there. We won't be on the mountain at all, and it's less than 22,000 feet high in the pass—although there are some bad ledges and washes. We'll keep clear of the main tree-roads if we can, and all the mapped trailmen's villages, but we may run into wandering bands—" abruptly I made my decision and gestured them around me.

"From this point," I broke the news, "we're liable to be attacked. Kyla, tell them what you saw."

She put down her mug. Her face was serious again, as she related what she had seen on the bridge. "We're on a peaceful mission, but they don't know that yet. The thing to remember is that they do not wish to kill, only to wound and rob. If we show fight—" she displayed a short ugly knife, which she tucked matter-of-factly into her shirt-front, "they will run away again."

Lerrys loosened a narrow dagger which until this moment I had thought purely ornamental. He said, "Mind if I say something more, Jason? I remember from the 'Narr campaign—the trailmen fight at close quarters, and by human standards they fight dirty." He looked around fiercely, his unshaven face glinting as he grinned. "One more thing. I like elbow room. Do we have to stay roped together when we start out again?"

I thought it over. His enthusiasm for a fight made me feel both annoyed and curiously delighted. "I won't make anyone stay roped who thinks he'd be safer without it," I said, "we'll decide that when the time comes, anyway. But personally—the trailmen are used to running along narrow ledges, and we're not. Their first tactic would probably be to push us off, one by one. If we're roped, we can fend them off better." I dismissed the subject, adding, "Just now, the important thing is to dry out."

Kendricks remained at my side after the others had gathered around the fire, looking into the thick forest which sloped up to our campsite. He said, "This place looks as if it had been used for a camp before. Aren't we just as vulnerable to attack here as we would be anywhere else?"

He had hit on the one thing I hadn't wanted to talk about. This clearing was altogether too convenient. I only said, "At least there aren't so many ledges to push us off."

Kendricks muttered, "You've got the only blaster!"

"I left it at Carthon," I said truthfully. Then I laid down the law:

"Listen, Buck. If we kill a single trailman, except in hand-to-hand fight in self-defense, we might as well pack up and go home. We're on a peaceful mission, and we're begging a favor. Even if we're attacked—we kill only as a last resort, and in hand-to-hand combat!"

"Damned primitive frontier planet—"

"Would you rather die of the trailmen's disease?"

He said savagely, "We're apt to catch it anyway—here. You're immune, you

don't care, you're safe! The rest of us are on a suicide mission—and damn it, when I die I want to take a few of those monkeys with me!"

I bent my head, bit my lip and said nothing. Buck couldn't be blamed for the way he felt. After a moment I pointed to the notch in the ridge again. "It's not so far. Once we get through Dammerung, it's easy going into the trailmen's city. Beyond there, it's all civilized."

"Maybe *you* call it civilization," Kendricks said, and turned away.

"Come on, let's finish drying our feet."

And at that moment they hit us.

Kendricks' yell was the only warning I had before I was fighting away something scrabbling up my back. I whirled and ripped the creature away, and saw dimly that the clearing was filled to the rim with an explosion of furry white bodies. I cupped my hands and yelled, in the only trailman dialect I knew, "Hold off! We come in peace!"

One of them yelled something unintelligible and plunged at me—another tribe! I saw a white-furred, chinless face, contorted in rage, a small ugly knife—a female! I ripped out my own knife, fending away a savage slash. Something tore white-hot across the knuckles of my hand; the fingers went limp and my knife fell, and the trailman woman snatched it up and made off with her prize, swinging lithely upward into the treetops.

I searched quickly, gripped with my good hand at the bleeding knuckles, and found Regis Hastur struggling at the edge of a ledge with a pair of the creatures. The crazy thought ran through my mind that if they killed him all Darkover would rise and exterminate the trailmen and it would all be my fault. Then Regis tore one hand free, and made a curious motion with his fingers.

It looked like an immense green spark a foot long, or like a fireball. It exploded in one creature's white face and she gave a wild howl of terror and anguish, scrabbled blindly at her eyes, and with a despairing shriek, ran for the shelter of the trees. The pack of trailmen gave a long formless wail, and then they were gathering, flying, retreating into the shadows. Rafe yelled something obscene and then a bolt of bluish flame lanced toward the retreating pack. One

of the humanoids fell without a cry, pitching senseless over the ledge.

I ran toward Rafe, struggling with him for the shocker he had drawn from its hiding-place inside his shirt. "You blind damned fool!" I cursed him, "you may have ruined everything—"

"They'd have killed him without it," he retorted wrathfully. He had evidently failed to see how efficiently Regis defended himself. Rafe motioned toward the fleeing pack and sneered, "Why don't you go with your friends?"

With a grip I thought I had forgotten, I got my hand around Rafe's knuckles and squeezed. His hand went limp and I snatched the shocker and pitched it over the ledge.

"One word and I'll pitch you after it," I warned. "Who's hurt?"

Garin was blinking senselessly, half-dazed by a blow; Regis' forehead had been gashed and dripped blood, and Hjalmar's thigh sliced in a clean cut. My own knuckles were laid bare and the hand was getting numb. It was a little while before anybody noticed Kyla, crouched over speechless with pain. She reeled and turned deathly white when we touched her; we stretched her out where she was, and got her shirt off, and Kendricks crowded up beside us to examine the wound.

"A clean cut," he said, but I didn't hear. Something had turned over inside me, like a hand stirring up my brain, and....

Jay Allison looked around with a gasp of sudden vertigo. He was not in Forth's office, but standing precariously near the edge of a cliff. He shut his eyes briefly, wondering if he were having one of his worst nightmares, and opened them on a familiar face.

Buck Kendricks was bone-white, his mouth widening as he said hoarsely, "Jay! Doctor Allison—for God's sake—"

A doctor's training creates reactions that are almost reflexes; Jay Allison recovered some degree of sanity as he became aware that someone was stretched out in front of him, half-naked, and bleeding profusely. He motioned away the crowding strangers and said in his bad Darkovan, "Let her alone, this is my work." He didn't know enough words to curse them away, so he switched to Terran, speaking to Kendricks:

"Buck, get these people away, give the patient some air. Where's my

surgical case?" He bent and probed briefly, realizing only now that the injured was a woman, and young.

The wound was only a superficial laceration; whatever sharp instrument had inflicted it, had turned on the costal bone without penetrating lung tissue. It could have been sutured, but Kendricks handed him only a badly-filled first-aid kit; so Dr. Allison covered it tightly with a plastic clip-shield which would seal it from further bleeding, and let it alone. By the time he had finished, the strange girl had begun to stir. She said haltingly, "Jason—?"

"Dr. Allison," he corrected tersely, surprised in a minor way—the major surprise had blurred lesser ones—that she knew his name. Kendricks spoke swiftly to the girl, in one of the Darkovan languages Jay didn't understand, and then drew Jay aside, out of earshot. He said in a shaken voice, "Jay, I didn't know—I wouldn't have believed—you're *Doctor Allison*? Good Lord—Jason!"

And then he moved fast. "What's the matter? Oh, hell, Jay, don't faint on me!"

Jay was aware that he didn't come out of it too bravely, but anyone who blamed him (he thought resentfully) should try it on for size; going to sleep in a comfortably closed-in office and waking up on a cliff at the outer edges of nowhere. His hand hurt; he saw that it was bleeding and flexed it experimentally, trying to determine that no tendons had been injured. He rapped, "How did this happen?"

"Sir, keep your voice down—or speak Darkovan!"

Jay blinked again. Kendricks was still the only familiar thing in a strangely vertiginous universe. The Spaceforce man said huskily. "Before heaven, Jay, I hadn't any idea—and I've known you how long? Eight, nine years?"

Jay said, "That idiot Forth!" and swore, the colorless profanity of an indoor man.

Somebody shouted, "Jason!" in an imperative voice, and Kendricks said shakily, "Jay, if they see you—you literally are not the same man!"

"Obviously not." Jay looked at the tent, one pole still unpitched. "Anyone in there?"

"Not yet." Kendricks almost shoved him inside. "I'll tell them—I'll tell them something." He took a radiant from his pocket, set it down and stared at

Allison in the flickering light, and said something profane. "You'll—you'll be all right here?"

Jay nodded. It was all he could manage. He was keeping a tight hold on his nerve; if it went, he'd start to rave like a madman. A little time passed, there were strange noises outside, and then there was a polite cough and a man walked into the tent.

He was obviously a Darkovan aristocrat and looked vaguely familiar, though Jay had no conscious memory of seeing him before. Tall and slender, he possessed that perfect and exquisite masculine beauty sometimes seen among Darkovans, and he spoke to Jay familiarly but with surprising courtesy:

"I have told them you are not to be disturbed for a moment, that your hand is worse than we believed. A surgeon's hands are delicate things, Doctor Allison, and I hope that yours are not badly injured. Will you let me look?"

Jay Allison drew back his hand automatically, then, conscious of the churlishness of the gesture, let the stranger take it in his and look at the fingers. The man said, "It does not seem serious. I was sure it was something more than that." He raised grave eyes. "You don't even remember my name, do you, Dr. Allison?"

"You know who I am?"

"Dr. Forth didn't tell me. But we Hasturs are partly telepathic, Jason—forgive me—Doctor Allison. I have known from the first that you were possessed by a god or daemon."

"Superstitious rubbish," Jay snapped. "Typical of a Darkovan!"

"It is a convenient manner of speaking, no more," said the young Hastur, overlooking the rudeness. "I suppose I could learn your terminology, if I considered it worth the effort. I have had psi training, and I can tell the difference when half of a man's soul has driven out the other half. Perhaps I can restore you to yourself—"

"If you think I'd have some Darkovan freak meddling with my mind—" Jay began hotly, then stopped. Under Regis' grave eyes, he felt a surge of unfamiliar humility. This crew of men needed their leader, and obviously he, Jay Allison, wasn't the leader they needed. He covered his eyes with one hand.

Regis bent and put a hand on his shoulder, compassionately, but Jay twitched it off, and his voice, when he found it, was bitter and defensive and

cold.

"All right. The work's the thing. I can't do it, Jason can. You're a parapsych. If you can switch me off—go right ahead!"

I stared at Regis, passing a hand across my forehead. "What happened?" I demanded, and in even swifter apprehension, "Where's Kyla? She was hurt—"

"Kyla's all right," Regis said, but I got up quickly to make sure. Kyla was outside, lying quite comfortably on a roll of blankets. She was propped on her elbow drinking something hot, and there was a good smell of hot food in the air. I stared at Regis and demanded, "I didn't conk out, did I, from a little scratch like this?" I looked carelessly at my gashed hand.

"Wait—" Regis held me back, "don't go out just yet. Do you remember what happened, Doctor Allison?"

I stared in growing horror, my worst fear confirmed. Regis said quietly, "You—changed. Probably from the shock of seeing—" he stopped in mid-sentence, and I said, "The last thing I remember is seeing that Kyla was bleeding, when we got her clothes off. But—good Gods, a little blood wouldn't scare *me*, and Jay Allison's a surgeon, would it bring him roaring up like that?"

"I couldn't say." Regis looked as if he knew more than he was telling. "I don't believe that Dr. Allison—he's not much like you—was very concerned with Kyla. Are you?"

"Damn right I am. I want to make sure she's all right—" I stopped abruptly. "Regis—did they all see it?"

"Only Kendricks and I," Regis said, "and we will not speak of it."

I said, "Thanks," and felt his reassuring hand-clasp. Damn it, demigod or prince, I *liked* Regis.

I went out and accepted some food from the kettle and sat down between Kyla and Kendricks to eat. I was shaken, weak with reaction. Furthermore, I realized that we couldn't stay here. It was too vulnerable to attack. So, in our present condition, were we. If we could push on hard enough to get near Dammerung pass tonight, then tomorrow we could cross it early, before the sun warmed the snow and we had snowslides and slush to deal with. Beyond Dammerung, I knew the tribesmen and could speak their language.

I mentioned this, and Kendricks looked doubtfully at Kyla. "Can she

climb?"

"Can she stay here?" I countered. But I went and sat beside her anyhow.

"How badly are you hurt? Do you think you can travel?"

She said fiercely, "Of course I can climb! I tell you, I'm no weak girl, I'm a free Amazon!" She flung off the blanket somebody had tucked around her legs. Her lips looked a little pinched, but the long stride was steady as she walked to the fire and demanded more soup.

We struck the camp in minutes. The trailmen band of raiding females had snatched up almost everything portable, and there was no sense in striking and caching the tent; they'd return and hunt it out. If we came back with a trailmen escort, we wouldn't need it anyway. I ordered them to leave everything but the lightest gear, and examined each remaining rucksack. Rations for the night we would spend in the pass, our few remaining blankets, ropes, sunglasses. Everything else I ruthlessly ordered left behind.

It was harder going now. For one thing, the sun was lowering, and the evening wind was icy. Nearly everyone of us had some hurt, slight in itself, which hindered us in climbing. Kyla was white and rigid, but did not spare herself; Kendricks was suffering severely from mountain sickness at this altitude, and I gave him all the help I could, but with my stiffening slashed hand I wasn't having too easy a time myself.

There was one expanse that was sheer rock-climbing, flattened like bugs against a wall, scrabbling for hand-holds and footholds. I felt it a point of pride to lead, and I led; but by the time we had climbed the thirty-foot wall, and scrambled along a ledge to where we could pick up the trail again, I was ready to give over. Crowding together on the ledge, I changed places with the veteran Lerrys, who was better than most professional climbers.

He muttered, "I thought you said this was a *trail*!"

I stretched my mouth in what was supposed to be a grin and didn't quite make it. "For the trailmen, this is a superhighway. And no one else ever comes this way."

Now we climbed slowly over snow; once or twice we had to flounder through drifts, and once a brief bitter snowstorm blotted out sight for twenty minutes, while we hugged each other on the ledge, clinging wildly against wind and icy sleet.

We bivouacked that night in a crevasse blown almost clean of snow, well above the tree-line, where only scrubby unkillable thornbushes clustered. We tore down some of them and piled them up as a windbreak, and bedded beneath it; but we all thought with aching regret of the comfort of the camp gear we'd abandoned. The going had gotten good and rough.

That night remains in my mind as one of the most miserable in memory. Except for the slight ringing in my ears, the height alone did not bother me, but the others did not fare so well. Most of the men had blinding headaches, Kyla's slashed side must have given her considerable pain, and Kendricks had succumbed to mountain-sickness in its most agonizing form: severe cramps and vomiting. I was desperately uneasy about all of them, but there was nothing I could do; the only cure for mountain-sickness is oxygen or a lower altitude, neither of which was practical.

In the windbreak we doubled up, sharing blankets and body warmth: I took a last look around the close space before crawling in beside Kendricks, and saw the girl bedding down slightly apart from the others. I started to say something, but Kendricks spoke, first. Voicing my thoughts.

"Better crawl in with us, girl." He added, coldly but not unkindly, "you needn't worry about any funny stuff."

Kyla gave me just the flicker of a grin, and I realized she was including me on the Darkovan side of a joke against this big man who was so unaware of Darkovan etiquette. But her voice was cool and curt as she said, "I'm not worrying," and loosened her heavy coat slightly before creeping into the nest of blankets between us.

It was painfully cramped, and chilly in spite of the self-heating blankets; we crowded close together and Kyla's head rested on my shoulder. I felt her snuggle closely to me, half asleep, hunting for a warm place; and I found myself very much aware of her closeness, curiously grateful to her. An ordinary woman would have protested, if only as a matter of form, sharing blankets with two strange men. I realized that if Kyla had refused to crawl in with us, she would have called attention to her sex much*more* than she did by matter-of-factly behaving as if she were, in fact, male.

She shivered convulsively, and I whispered, "Side hurting? Are you cold?"

"A little. It's been a long time since I've been at these altitudes, too. What it really is—I can't get those women out of my head."

Kendricks coughed, moving uncomfortably. "I don't understand—those creatures who attacked us—all women—?"

I explained briefly. "Among the people of the Sky, as everywhere, more females are born than males. But the trailmen's lives are so balanced that they have no room for extra females within the Nests—the cities. So when a girl child of the Sky People reaches womanhood, the other women drive her out of the city with kicks and blows, and she has to wander in the forest until some male comes after her and claims her and brings her back as his own. Then she can never be driven forth again, although if she bears no children she can be forced to be a servant to his other wives."

Kendricks made a little sound of disgust.

"You think it cruel," Kyla said with sudden passion, "but in the forest they can live and find their own food; they will not starve or die. Many of them prefer the forest life to living in the Nests, and they will fight away any male who comes near them. We who call ourselves human often make less provision for our spare women."

She was silent, sighing as if with pain. Kendricks made no reply except a non-committal grunt. I held myself back by main force from touching Kyla, remembering what she was, and finally said, "We'd better quit talking. The others want to sleep, if we don't."

After a time I heard Kendricks snoring, and Kyla's quiet even breaths. I wondered drowsily how Jay would have felt about this situation—he who hated Darkover and avoided contact with every other human being, crowded between a Darkovan free-Amazon and half a dozen assorted roughnecks. I turned the thought off, fearing it might somehow re-arouse him in his brain.

But I had to think of something, anything to turn aside this consciousness of the woman's head against my chest, her warm breath coming and going against my bare neck. Only by the severest possible act of will did I keep myself from slipping my hand over her breasts, warm and palpable through the thin sweater, I wondered why Forth had called me undisciplined. I couldn't risk my leadership by making advances to our contracted guide—woman, Amazon or

whatever!

Somehow the girl seemed to be the pivot point of all my thoughts. She was not part of the Terran HQ, she was not part of any world Jay Allison might have known. She belonged wholly to Jason, to my world. Between sleep and waking, I lost myself in a dream of skimming flight-wise along the tree roads, chasing the distant form of a girl driven from the Nest that day with blows and curses. Somewhere in the leaves I would find her ... and we would return to the city, her head garlanded with the red leaves of a chosen-one, and the same women who had stoned her forth would crowd about and welcome her when she returned. The fleeing woman looked over her shoulder with Kyla's eyes; and then the woman's form muted and Dr. Forth was standing between us in the tree-road, with the caduceus emblem on his coat stretched like a red staff between us. Kendricks in his Spaceforce uniform was threatening us with a blaster, and Regis Hastur was suddenly wearing Space Service uniform too and saying, "Jay Allison, Jay Allison," as the tree-road splintered and cracked beneath our feet and we were tumbling down the waterfall and down and down and down....

"Wake up!" Kyla whispered, and dug an elbow into my side. I opened my eyes on crowded blackness, grasping at the vanishing nightmare. "What's the matter?"

"You were moaning. Touch of altitude sickness?"

I grunted, realized my arm was around her shoulder, and pulled it quickly away. After awhile I slept again, fitfully.

Before light we crawled wearily out of the bivouac, cramped and stiff and not rested, but ready to get out of this and go on. The snow was hard, in the dim light, and the trail not difficult here. After all the trouble on the lower slopes, I think even the amateurs had lost their desire for adventurous climbing; we were all just as well pleased that the actual crossing of Dammerung should be an anticlimax and uneventful.

The sun was just rising when we reached the pass, and we stood for a moment, gathered close together, in the narrow defile between the great summits to either side.

Hjalmar gave the peaks a wistful look.

"Wish we could climb them."

Regis grinned at him companionably. "Sometime—and you have the word of a Hastur, you'll be along on that expedition." The big fellows' eyes glowed. Regis turned to me, and said warmly, "What about it, Jason? A bargain? Shall we all climb it together, next year?"

I started to grin back and then some bleak black devil surged up in me, raging. When this was over, I'd suddenly realized, I wouldn't be there. I wouldn't be anywhere. I was a surrogate, a substitute, a splinter of Jay Allison, and when it was over, Forth and his tactics would put me back into what they considered my rightful place—which was nowhere. I'd never climb a mountain except now, when we were racing against time and necessity. I set my mouth in an unaccustomed narrow line and said, "We'll talk about that when we get back —if we ever do. Now I suggest we get going. Some of us would like to get down to lower altitudes."

The trail down from Dammerung inside the ridge, unlike the outside trail, was clear and well-marked, and we wound down the slope, walking in easy single file. As the mist thinned and we left the snow-line behind, we saw what looked like a great green carpet, interspersed with shining colors which were mere flickers below us. I pointed them out.

"The treetops of the North Forest—and the colors you see are in the streets of the Trailcity."

An hour's walking brought us to the edge of the forest. We travelled swiftly now, forgetting our weariness, eager to reach the city before nightfall. It was quiet in the forest, almost ominously still. Over our head somewhere, in the thick branches which in places shut out the sunlight completely, I knew that the tree-roads ran crisscross, and now and again I heard some rustle, a fragment of sound, a voice, a snatch of song.

"It's so dark down here," Rafe muttered, "anyone living in this forest would *have* to live in the treetops, or go totally blind!"

Kendricks whispered to me, "Are we being followed? Are they going to jump us?"

"I don't think so. What you hear are just the inhabitants of the city—going about their daily business up there."

"Queer business it must be," Regis said curiously, and as we walked along the mossy, needly forest floor, I told him something of the trailmen's lives. I had

lost my fear. If anyone came at us now, I could speak their language, I could identify myself, tell my business, name my foster-parents. Some of my confidence evidently spread to the others.

But as we came into more and more familiar territory, I stopped abruptly and struck my hand against my forehead.

"I knew we had forgotten something!" I said roughly, "I've been away from here too long, that's all. Kyla."

"What about Kyla?"

The girl explained it herself, in her expressionless monotone. "I am an unattached female. Such women are not permitted in the Nests."

"That's easy, then," Lerrys said. "She must belong to one of us." He didn't add a syllable. No one could have expected it; Darkovan aristocrats don't bring their women on trips like this, and their women are not like Kyla.

The three brothers broke into a spate of volunteering, and Rafe made an obscene suggestion. Kyla scowled obstinately, her mouth tight with what could have been embarrassment or rage. "If you believe I need your protection—!"

"Kyla," I said tersely, "is under *my* protection. She will be introduced as my woman—and treated as such."

Rafe twisted his mouth in an un-funny smile. "I see the leader keeps all the best for himself?"

My face must have done something I didn't know about, for Rafe backed slowly away. I forced myself to speak slowly: "Kyla is a guide, and indispensable. If anything happens to me, she is the only one who can lead you back. Therefore her safety is my personal affair. Understand?"

As we went along the trail, the vague green light disappeared. "We're right below the Trailcity," I whispered, and pointed upward. All around us the Hundred Trees rose, branchless pillars so immense that four men, hands joined, could not have encircled one with their arms. They stretched upward for some three hundred feet, before stretching out their interweaving branches; above that, nothing was visible but blackness.

Yet the grove was not dark, but lighted with the startlingly brilliant phosphorescence of the fungi growing on the trunks, and trimmed into bizarre ornamental shapes. In cages of transparent fibre, glowing insects as large as a

hand hummed softly and continuously.

As I watched, a trailman—quite naked except for an ornate hat and a narrow binding around the loins—descended the trunk. He went from cage to cage, feeding the glow-worms with bits of shining fungus from a basket on his arm.

I called to him in his own language, and he dropped the basket, with an exclamation, his spidery thin body braced to flee or to raise an alarm.

"But I belong to the Nest," I called to him, and gave him the names of my foster-parents. He came toward me, gripping my forearm with warm long fingers in a gesture of greeting.

"Jason? Yes, I hear them speak of you," he said in his gentle twittering voice, "you are at home. But those others—?" He gestured nervously at the strange faces.

"My friends," I assured him, "and we come to beg the Old One for an audience. For tonight I seek shelter with my parents, if they will receive us."

He raised his head and called softly, and a slim child bounded down the trunk and took the basket. The trailman said, "I am Carrho. Perhaps it would be better if I guided you to your foster-parents, so you will not be challenged."

I breathed more freely. I did not personally recognize Carrho, but he looked pleasantly familiar. Guided by him, we climbed one by one up the dark stairway inside the trunk, and emerged into the bright square, shaded by the topmost leaves into a delicate green twilight. I felt weary and successful.

Kendricks stepped gingerly on the swaying, jiggling floor of the square. It gave slightly at every step, and Kendricks swore morosely in a language that fortunately only Rafe and I understood. Curious trailmen flocked to the street and twittered welcome and surprise.

Rafe and Kendricks betrayed considerable contempt when I greeted my foster-parents affectionately. They were already old, and I was saddened to see it; their fur graying, their prehensile toes and fingers crooked with a rheumatic complaint of some sort, their reddish eyes bleared and rheumy. They welcomed me, and made arrangements for the others in my party to be housed in an abandoned house nearby ... they had insisted that I, of course, must return to their roof, and Kyla, of course, had to stay with me.

"Couldn't we camp on the ground instead?" Kendricks asked, eying the flimsy shelter with distaste.

"It would offend our hosts," I said firmly. I saw nothing wrong with it. Roofed with woven bark, carpeted with moss which was planted on the floor, the place was abandoned, somewhat a bit musty, but weathertight and seemed comfortable to me.

The first thing to be done was to despatch a messenger to the Old One, begging the favor of an audience with him. That done, (by one of my foster-brothers), we settled down to a meal of buds, honey, insects and birds eggs! It tasted good to me, with the familiarity of food eaten in childhood, but among the others, only Kyla ate with appetite and Regis Hastur with interested curiosity.

After the demands of hospitality had been satisfied, my foster-parents asked the names of my party, and I introduced them one by one. When I named Regis Hastur, it reduced them to brief silence, and then to an outcry; gently but firmly, they insisted that their home was unworthy to shelter the son of a Hastur, and that he must be fittingly entertained at the Royal Nest of the Old One.

There was no gracious way for Regis to protest, and when the messenger returned, he prepared to accompany him. But before leaving, he drew me aside:

"I don't much like leaving the rest of you—"

"You'll be safe enough."

"It's not that I'm worried about, Dr. Allison."

"Call me Jason," I corrected angrily. Regis said, with a little tightening of his mouth, "That's it. You'll have to be Dr. Allison tomorrow when you tell the Old One about your mission. But you have to be the Jason he knows, too."

"So—?"

"I wish I needn't leave here. I wish you were—going to stay with the men who know you only as Jason, instead of being alone—or only with Kyla."

There was something odd in his face, and I wondered at it. Could he—a Hastur—be jealous of Kyla? Jealous of *me*? It had never occurred to me that he might be somehow attracted to Kyla. I tried to pass it off lightly:

"Kyla might divert me."

Regis said without emphasis, "Yet she brought Dr. Allison back once before." Then, surprisingly, he laughed. "Or maybe you're right. Maybe Kyla

will—scare away Dr. Allison if he shows up."

The coals of the dying fire laid strange tints of color on Kyla's face and shoulders and the wispy waves of her dark hair. Now that we were alone, I felt constrained.

"Can't you sleep, Jason?"

I shook my head. "Better sleep while you can." I felt that this night of all nights I dared not close my eyes or when I woke I would have vanished into the Jay Allison I hated. For a moment I saw the room with his eyes; to him it would not seem cosy and clean, but—habituated to white sterile tile, Terran rooms and corridors—dirty and unsanitary as any beast's den.

Kyla said broodingly, "You're a strange man, Jason. What sort of man are you—in Terra's world?"

I laughed, but there was no mirth in it. Suddenly I had to tell her the whole truth:

"Kyla, the man you know as me doesn't exist. I was created for this one specific task. Once it's finished, so am I."

She started, her eyes widening. "I've heard tales of—of the Terrans and their sciences—that they make men who aren't real, men of metal—not bone and flesh—"

Before the dawning of that naive horror I quickly held out my bandaged hand, took her fingers in mine and ran them over it. "Is this metal? No, no, Kyla. But the man you know as Jason—I won't be him, I'll be someone different —" How could I explain a subsidiary personality to Kyla, when I didn't understand it myself?

She kept my fingers in hers softly and said, "I saw—someone else—looking from your eyes at me once. A ghost."

I shook my head savagely. "To the Terrans, I'm the ghost!"

"Poor ghost," she whispered.

Her pity stung. I didn't want it.

"What I don't remember I can't regret. Probably I won't even remember you." But I lied. I knew that although I forgot everything else, unregretting because unremembered, I could not bear to lose this girl, that my ghost would walk restless forever if I forgot her. I looked across the fire at Kyla, cross-legged

in the faint light—only a few coals in the brazier. She had removed her sexless outer clothing, and wore some clinging garment, as simple as a child's smock and curiously appealing. There was still a little ridge of bandage visible beneath it and a random memory, not mine, remarked in the back corners of my brain that with the cut improperly sutured there would be a visible scar. *Visible to whom?*

She reached out an appealing hand. "Jason! Jason—?"

My self-possession deserted me. I felt as if I stood, small and reeling, under a great empty echoing chamber which was Jay Allison's mind, and that the roof was about to fall in on me. Kyla's image flickered in and out of focus, first infinitely gentle and appealing, then—as if seen at the wrong end of a telescope—far away and sharply incised and as remote and undesirable as any bug underneath a lens.

Her hands closed on my shoulders. I put out a groping hand to push her away.

"Jason," she implored, "don't—go away from me like that! Talk to me, tell me!"

But her words reached me through emptiness.... I knew important things might hang on tomorrow's meeting, Jason alone could come through that meeting, where the Terrans for some reason put him through this hell and damnation and torture ... oh, yes ... the trailmen's fever.

Jay Allison pushed the girl's hand away and scowled savagely, trying to collect his thoughts and concentrate them on what he must say and do, to convince the trailmen of their duty toward the rest of the planet. As if they—not even human—could have a sense of duty!

With an unaccustomed surge of emotion, he wished he were with the others. Kendricks, now. Jay knew, precisely, why Forth had sent the big, reliable spaceman at his back. And that handsome, arrogant Darkovan—where was he? Jay looked at the girl in puzzlement; he didn't want to reveal that he wasn't quite sure of what he was saying or doing, or that he had little memory of what Jason had been up to.

He started to ask, "Where did the Hastur kid go?" before a vagrant logical thought told him that such an important guest would have been lodged with the

Old One. Then a wave of despair hit him; Jay realized he did not even speak the trailmen's language, that it had slipped from his thoughts completely.



She felt a touch of panic. He was leaving her again.

"You—" he fished desperately for the girl's name, "Kyla. You don't speak the trailmen's language, do you?"

"A few words. No more. Why?" She had withdrawn into a corner of the tiny room—still not far from him—and he wondered remotely what his damned alter ego had been up to. With Jason, there was no telling. Jay raised his eyes with a melancholy smile.

"Sit down, child. You needn't be frightened."

"I'm—I'm trying to understand—" the girl touched him again, evidently trying to conquer her terror. "It isn't easy—when you turn into someone else under my eyes—" Jay saw that she was shaking in real fright.

He said wearily, "I'm not going to—to turn into a bat and fly away. I'm just a poor devil of a doctor who's gotten himself into one unholy mess." There was no reason, he was thinking, to take out his own misery and despair by shouting at this poor kid. God knew what she'd been through with his irresponsible other self—Forth had admitted that that damned "Jason" personality was a blend of all the undesirable traits he'd fought to smother all his life. By an effort of will he kept himself from pulling away from her hand on his shoulder.

"Jason, don't—slip away like that! *Think!* Try to keep hold on *yourself*!"

Jay propped his head in his hands, trying to make sense of that. Certainly in the dim light she could not be too conscious of subtle changes of expression. She evidently thought she was talking to Jason. She didn't seem to be overly intelligent.

"Think about tomorrow, Jason. What are you going to say to him? Think about your parents—"

Jay Allison wondered what they would think when they found a stranger here. He felt like a stranger. Yet he must have come, tonight, into this house and spoken—he rummaged desperately in his mind for some fragments of the trailmen's language. He had spoken it as a child. He must recall enough to speak to the woman who had been a kind foster-mother to her alien son. He tried to form his lips to the unfamiliar shapes of words ...

Jay covered his face with his hands again. Jason was the part of himself that remembered the trailmen. *That* was what he had to remember—Jason was not a hostile stranger, not an alien intruder in his body. Jason was a lost part of himself and at the moment a damn necessary part. If there were only some way to get back the Jason memories, skills, without losing *himself* ... he said to the girl, "Let me think. Let me—" to his surprise and horror his voice broke into an alien tongue, "Let me alone, will you?"

Maybe, Jay thought, I could stay myself if I could remember the rest. Dr. Forth said: Jason would remember the trailmen with kindness, not dislike.

Jay searched his memory and found nothing but familiar frustration; years spent in an alien land, apart from a human heritage, stranded and abandoned. *My father left me. He crashed the plane and I never saw him again and I hate him for leaving me* ...

But his father had not abandoned him. He had crashed the plane trying to save them both. It was no one's fault—

Except my father's. For trying to fly over the Hellers into a country where no man belongs ...

He hadn't belonged. And yet the trailmen, whom he considered little better than roaming beasts, had taken the alien child into their city, their homes, their hearts. They had loved him. And he ...

"And I loved them," I found myself saying half aloud, then realized that Kyla was gripping my arm, looking up imploringly into my face. I shook my head rather groggily. "What's the matter?"

"You frightened me," she said in a shaky little voice, and I suddenly knew what had happened. I tensed with savage rage against Jay Allison. He couldn't even give me the splinter of life I'd won for myself, but had to come sneaking out of my mind, how he must hate me! Not half as much as I hated him, damn him! Along with everything else, he'd scared Kyla half to death!

She was kneeling very close to me, and I realized that there was one way to fight that cold austere fish of a Jay Allison, send him shrieking down into hell again. He was a man who hated everything except the cold world he'd made his life. Kyla's face was lifted, soft and intent and pleading, and suddenly I reached out and pulled her to me and kissed her, hard.

"Could a ghost do this?" I demanded, "or this?"

She whispered, "No—oh, no," and her arms went up to lock around my neck. As I pulled her down on the sweet-smelling moss that carpeted the chamber, I felt the dark ghost of my other self thin out, vanish and disappear.

Regis had been right. It had been the only way ...

The Old One was not old at all; the title was purely ceremonial. This one was young—not much older than I—but he had poise and dignity and the same strange indefinable quality I had recognized in Regis Hastur. It was something, I supposed, that the Terran Empire had lost in spreading from star to star. A feeling of knowing one's own place, a dignity that didn't demand recognition because it had never lacked for it.

Like all trailmen he had the chinless face and lobeless ears, the heavy-haired body which looked slightly less than human. He spoke very low—the trailmen have very acute hearing—and I had to strain my ears to listen, and remember to keep my own voice down.

He stretched his hand to me, and I lowered my head over it and murmured, "I take submission, Old One."

"Never mind that," he said in his gentle twittering voice, "sit down, my son. You are welcome here, but I feel you have abused our trust in you. We dismissed you to your own kind because we felt you would be happier so. Did

we show you anything but kindness, that after so many years you return with armed men?"

The reproof in his red eyes was hardly an auspicious beginning. I said helplessly, "Old One, the men with me are not armed. A band of those-who-may-not-enter-cities attacked us, and we defended ourselves. I travelled with so many men only because I feared to travel the passes alone."

"But does that explain why you have returned at all?" The reason and reproach in his voice made sense.

Finally I said, "Old One, we come as suppliants. My people appeal to your people in the hope that you will be—" I started to say, *as human*, stopped and amended "—that you will deal as kindly with them as with me."

His face betrayed nothing. "What do you ask?"

I explained. I told it badly, stumbling, not knowing the technical terms, knowing they had no equivalents anyway in the trailmen's language. He listened, asking a penetrating question now and again. When I mentioned the Terran Legate's offer to recognize the trailmen as a separate and independent government, he frowned and rebuked me:

"We of the Sky People have no dealings with the Terrans, and care nothing for their recognition—or its lack."

For that I had no answer, and the Old One continued, kindly but indifferently, "We do not like to think that the fever which is a children's little sickness with us shall kill so many of your kind. But you cannot in all honesty blame us. You cannot say that we spread the disease; we never go beyond the mountains. Are we to blame that the winds change or the moons come together in the sky? When the time has come for men to die, they die." He stretched his hand in dismissal. "I will give your men safe-conduct to the river, Jason. Do not return."

Regis Hastur rose suddenly and faced him. "Will you hear me, Father?" He used the ceremonial title without hesitation, and the Old One said in distress, "The son of Hastur need never speak as a suppliant to the Sky People!"

"Nevertheless, hear me as a suppliant, Father," Regis said quietly. "It is not the strangers and aliens of Terra who are pleading. We have learned one thing from the strangers of Terra, which you have not yet learned. I am young and it is not fitting that I should teach you, but you have said; are we to blame

that the moons come together in the sky? No. But we have learned from the Terrans not to blame the moons in the sky for our own ignorance of the ways of the Gods—by which I mean the ways of sickness or poverty or misery."

"These are strange words for a Hastur," said the Old One, displeased.

"These are strange times for a Hastur," said Regis loudly. The Old One winced, and Regis moderated his tone, but continued vehemently, "You blame the moons in the sky. *I* say the moons are not to blame—nor the winds—nor the Gods. The Gods send these things to men to test their wits and to find if they have the will to master them!"

The Old One's forehead ridged vertically and he said with stinging contempt, "Is this the breed of king which men call Hastur now?"

"Man or God or Hastur, I am not too proud to plead for my people," retorted Regis, flushing with anger. "Never in all the history of Darkover has a Hastur stood before one of you and begged—"

"—for the men from another world."

"—for all men on our world! Old One, I could sit and keep state in the House of the Hasturs, and even death could not touch me until I grew weary of living! But I preferred to learn new lives from new men. The Terrans have something to teach even the Hasturs, and they can learn a remedy against the trailmen's fever." He looked round at me, turning the discussion over to me again, and I said:

"I am no alien from another world, Old One. I have been a son in your house. Perhaps I was sent to teach you to fight destiny. I cannot believe you are indifferent to death."

Suddenly, hardly knowing what I was going to do until I found myself on my knees, I knelt and looked up into the quiet stern remote face of the nonhuman:

"My father," I said, "you took a dying man and a dying child from a burning plane. Even those of their own kind might have stripped their corpses and left them to die. You saved the child, fostered him and treated him as a son. When he reached an age to be unhappy with you, you let a dozen of your people risk their lives to take him to his own. You cannot ask me to believe that you are indifferent to the death of a million of my people, when the fate of one could stir your pity!"

There was a moment's silence. Finally the Old One said, "Indifferent—no. But helpless. My people die when they leave the mountains. The air is too rich for them. The food is wrong. The light blinds and tortures them. Can I send them to suffer and die, those people who call me father?"

And a memory, buried all my life, suddenly surfaced. I said urgently, "Father, listen. In the world I live in now, I am called a wise man. You need not believe me, but listen; I know your people, they are my people. I remember when I left you, more than a dozen of my foster-parents' friends offered, knowing they risked death, to go with me. I was a child; I did not realize the sacrifice they made. But I watched them suffer, as we went lower in the mountains, and I resolved ... I resolved ..." I spoke with difficulty, forcing the words through a reluctant barricade, "... that since others had suffered so for me ... I would spend my life in curing the sufferings of others. Father, the Terrans call me a wise doctor, a man of healing. Among the Terrans I can see that my people, if they will come to us and help us, have air they can breathe and food which will suit them and that they are guarded from the light. I don't ask you to send anyone, father. I ask only—tell your sons what I have told you. If I know your people—who are my people forever—hundreds of them will offer to return with me. And you may witness what your foster-son has sworn here; if one of your sons dies, your alien son will answer for it with his own life."

The words had poured from me in a flood. They were not all mine; some unconscious thing had recalled in me that Jay Allison had power to make these promises. For the first time I began to see what force, what guilt, what dedication working in Jay Allison had turned him aside from me. I remained at the Old One's feet, kneeling, overcome, ashamed of the thing I had become. Jay Allison was worth ten of me. Irresponsible, Forth had said. Lacking purpose, lacking balance. What right had I to despise my soberer self?

At last I felt the Old One touch my head lightly.

"Get up, my son," he said, "I will answer for my people. And forgive me for my doubts and my delays."

Neither Regis nor I spoke for a minute after we left the audience room; then, almost as one, we turned to each other. Regis spoke first, soberly.

"It was a fine thing you did, Jason. I didn't believe he'd agree to it."

"It was your speech that did it," I denied. The sober mood, the unaccustomed surge of emotion, was still on me, but it was giving way to a sudden upswing of exaltation. Damn it, I'd *done* it! Let Jay Allison try to match *that* ...

Regis still looked grave. "He'd have refused, but you appealed to him as one of themselves. And yet it wasn't quite that ... it was something more ..." Regis put a quick embarrassed arm around my shoulders and suddenly blurted out, "I think the Terran Medical played hell with your life, Jason! And even if it saves a million lives—it's hard to forgive them for that!"

Late the next day the Old One called us in again, and told us that a hundred men had volunteered to return with us and act as blood donors and experimental subjects for research into the trailmen's disease.

The trip over the mountains, so painfully accomplished was easier in return. Our escort of a hundred trailmen guaranteed us against attack, and they could choose the easiest paths.

Only as we undertook the long climb downward through the foothills did the trailmen, un-used to ground travel at any time, and suffering from the unaccustomed low altitude, begin to weaken. As we grew stronger, more and more of them faltered, and we travelled more and more slowly. Not even Kendricks could be callous about "inhuman animals" by the time we reached the point where we had left the pack animals. And it was Rafe Scott who came to me and said desperately, "Jason, these poor fellows will never make it to Carthon. Lerrys and I know this country. Let us go ahead, as fast as we can travel alone, and arrange at Carthon for transit—maybe we can get pressurized aircraft to fly them from here. We can send a message from Carthon, too, about accommodations for them at the Terran HQ."

I was surprised and a little guilty that I had not thought of this myself. I covered it with a mocking, "I thought you didn't give a damn about 'any of my friends.'"

Rafe said doggedly, "I guess I was wrong about that. They're going through this out of a sense of duty, so they must be pretty different than I thought they were."

Regis, who had overheard Rafe's plan, now broke in quietly, "There's no need for you to travel ahead, Rafe. I can send a quicker message."

I had forgotten that Regis was a trained telepath. He added, "There are some space and distance limitations to such messages, but there is a regular relay net all over Darkover, and one of the relays is a girl who lives at the very edge of the Terran Zone. *If* you'll tell me what will give her access to the Terran HQ—" he flushed slightly and explained, "from what I know of the Terrans, she would not be very fortunate relaying the message if she merely walked to the gate and said she had a relayed telepathic message for someone, would she?"

I had to smile at the picture that conjured up in my mind. "I'm afraid not," I admitted. "Tell her to go to Dr. Forth, and give the message from Dr. Jason Allison."

Regis looked at me curiously—it was the first time I had spoken my own name in the hearing of the others. But he nodded, without comment. For the next hour or two he seemed somewhat more pre-occupied than usual, but after a time he came to me and told me that the message had gone through. Sometime later he relayed an answer; that airlift would be waiting for us, not at Carthon, but a small village near the ford of the Kadarin where we had left our trucks.

When we camped that night there were a dozen practical problems needing attention; the time and exact place of crossing the ford, the reassurance to be given to terrified trailmen who could face leaving their forests but not crossing the final barricade of the river, the small help in our power to be given the sick ones. But after everything had been done that I could do, and after the whole camp had quieted down, I sat before the low-burning fire and stared into it, deep in painful lassitude. Tomorrow we would cross the river and a few hours later we would be back in the Terran HQ. And then....

And then ... and then nothing. I would vanish, I would utterly cease to exist anywhere, except as a vagrant ghost troubling Jay Allison's unquiet dreams. As he moved through the cold round of his days I would be no more than a spent wind, a burst bubble, a thinned cloud.

The rose and saffron of the dying fire-colors gave shape to my dreams. Once more, as in the trailcity that night, Kyla slipped through firelight to my side, and I looked up at her and suddenly I knew I could not bear it. I pulled her to me and muttered, "Oh, Kyla—Kyla, I won't even remember you!"

She pushed my hands away, kneeling upright, and said urgently, "Jason, listen. We are close to Carthon, the others can lead them the rest of the way. Why go back to them at all? Slip away now and never go back! We can—" she stopped, coloring fiercely, that sudden and terrifying shyness overcoming her again, and at last she said in a whisper, "Darkover is a wide world, Jason. Big enough for us to hide in. I don't believe they would search very far."

They wouldn't. I could leave word with Kendricks—not with Regis, the telepath would see through me immediately—that I had ridden ahead to Carthon, with Kyla. By the time they realized that I had fled, they would be too concerned with getting the trailmen safely to the Terran Zone to spend much time looking for a runaway. As Kyla said, the world was wide. And it was my world. And I would not be alone in it.

"Kyla, Kyla," I said helplessly, and crushed her against me, kissing her. She closed her eyes and I took a long, long look at her face. Not beautiful, no. But womanly and brave and all the other beautiful things. It was a farewell look, and I knew it, if she didn't.

After the briefest time, she pulled a little away, and her flat voice was gentler and more breathless than usual. "We'd better leave before the others waken." She saw that I did not move. "Jason—?"

I could not look at her. Muffled behind my hands, I said, "No, Kyla. I—I promised the Old One to look after my people in the Terran world. I must go back—"

"You won't be *there* to look after them! You won't be *you*!"

I said bleakly, "I'll write a letter to remind myself. Jay Allison has a very strong sense of duty. He'll look after them for me. He won't like it, but he'll do it, with his last breath. He's a better man than I am, Kyla. You'd better forget about me." I said, wearily, "I never existed."

That wasn't the end. Not nearly. She—begged, and I don't know why I put myself through the hell of stubbornness. But in the end she ran away, crying, and I threw myself down by the fire, cursing Forth, cursing my own folly, but most of all cursing Jay Allison, hating my other self with a blistering, sickening rage.

Coming through the outskirts of the small village the next afternoon, the

village where the airlift would meet us, we noted that the poorer quarter was almost abandoned. Regis said bleakly, "It's begun," and dropped out of line to stand in the doorway of a silent dwelling. After a minute he beckoned to me, and I looked inside.

I wished I hadn't. The sight would haunt me while I lived. An old man, two young women and half a dozen children between four and fifteen years old lay inside. The old man, one of the children, and one of the young women were laid out neatly in clean death, shrouded, their faces covered with green branches after the Darkovan custom for the dead. The other young woman lay huddled near the fireplace, her coarse dress splattered with the filthy stuff she had vomited, dying. The children—but even now I can't think of the children without retching. One, very small, had been in the woman's arms when she collapsed; it had squirmed free—for a little while. The others were in an indescribable condition and the worst of it was that one of them was still moving, feebly, long past help. Regis turned blindly from the door and leaned against the wall, his shoulders heaving. Not, as I first thought, in disgust, but in grief. Tears ran over his hands and spilled down, and when I took him by the arm to lead him away, he reeled and fell against me.

He said in a broken, blurred, choking voice, "Oh, Lord, Jason, those children, those children—if you ever had any doubts about what you're doing, any doubts about what you've done, think about that, think that you've saved a whole world from that, think that you've done something even the Hasturs couldn't do!"

My own throat tightened with something more than embarrassment. "Better wait till we know for sure whether the Terrans can carry through with it, and you'd better get to hell away from this doorway. I'm immune, but damn it, you're not." But I had to take him and lead him away, like a child, from that house. He looked up into my face and said with burning sincerity, "I wonder if you believe I'd give my life, a dozen times over, to have done that?"

It was a curious, austere reward. But vaguely it comforted me. And then, as we rode into the village itself, I lost myself, or tried to lose myself, in reassuring the frightened trailmen who had never seen a city on the ground, never seen or heard of an airplane. I avoided Kyla. I didn't want a final word, a farewell. We had had our farewells already.

Forth had done a marvelous job of having quarters ready for the trailmen, and after they were comfortably installed and reassured, I went down wearily and dressed in Jay Allison's clothing. I looked out the window at the distant mountains and a line from the book on mountaineering, which I had bought as a youngster in an alien world, and Jay had kept as a stray fragment of personality, ran in violent conflict through my mind:

Something hidden—go and find it ...

Something lost beyond the ranges ...

I had just begun to live. Surely I deserved better than this, to vanish when I had just discovered life. Did the man who did not know how to live, deserve to live at all? Jay Allison—that cold man who had never looked beyond any ranges—why should I be lost in him?

Something lost beyond the ranges ... nothing would be lost but myself. I was beginning to loathe the overflown sense of duty which had brought me back here. Now, when it was too late, I was bitterly regretting ... Kyla had offered me life. Surely I would never see Kyla again.

Could I regret what I would never remember? I walked into Forth's office as if I were going to my doom. I *was* ...

Forth greeted me warmly.

"Sit down and tell me all about it ..." he insisted. I would rather not speak. Instead, compulsively, I made it a full report ... and curious flickers came in and out of my consciousness as I spoke. By the time I realized I was reacting to a post-hypnotic suggestion, that in fact I was going under hypnosis again, it was too late and I could only think that this was worse than death because in a way I would be alive ...

Jay Allison sat up and meticulously straightened his cuff before tightening his mouth in what was meant for a smile. "I assume, then, that the experiment was a success?"

"A complete success." Forth's voice was somewhat harsh and annoyed, but Jay was untroubled; he had known for years that most of his subordinates and

superiors disliked him, and had long ago stopped worrying about it.

"The trailmen agreed?"

"They agreed," Forth said, surprised. "You don't remember anything at all?"

"Scraps. Like a nightmare." Jay Allison looked down at the back of his hand, flexing the fingers cautiously against pain, touching the partially healed red slash. Forth followed the direction of his eyes and said, not unsympathetically, "Don't worry about your hand. I looked at it pretty carefully. You'll have the total use of it."

Jay said rigidly, "It seems to have been a pretty severe risk to take. Did you ever stop to think what it would have meant to me, to lose the use of my hand?"

"It seemed a justifiable risk, even if you had," Forth said dryly. "Jay, I've got the whole story on tape, just as you told it to me. You might not like having a blank spot in your memory. Want to hear what your alter ego did?"

Jay hesitated. Then he unfolded his long legs and stood up. "No, I don't think I care to know." He waited, arrested by a twinge of a sore muscle, and frowned.

What had happened, what would he never know, why did the random ache bring a pain deeper than the pain of a torn nerve? Forth was watching him, and Jay asked irritably, "What is it?"

"You're one hell of a cold fish, Jay."

"I don't understand you, sir."

"You wouldn't," Forth muttered. "Funny. I *liked* your subsidiary personality."

Jay's mouth contracted in a mirthless grin.

"You would," he said, and swung quickly round.

"Come on. If I'm going to work on that serum project I'd better inspect the volunteers and line up the blood donors and look over old whatshisname's papers."

But beyond the window the snowy ridges of the mountain, inscrutable, caught and held his eye; a riddle and a puzzle—

"Ridiculous," he said, and went to his work.

Four months later, Jay Allison and Randall Forth stood together, watching

the last of the disappearing planes, carrying the volunteers back toward Carthon and their mountains.

"I should have flown back to Carthon with them," Jay said moodily. Forth watched the tall man stare at the mountain; wondered what lay behind the contained gestures and the brooding.

He said, "You've done enough, Jay. You've worked like the devil. Thurmond—the Legate—sent down to say you'd get an official commendation and a promotion for your part. That's not even mentioning what you did in the trailmen's city." He put a hand on his colleague's shoulder, but Jay shook it off impatiently.

All through the work of isolating and testing the blood fraction, Jay had worked tirelessly and unsparingly; scarcely sleeping, but brooding; silent, prone to fly into sudden savage rages, but painstaking. He had overseen the trailmen with an almost fatherly solicitude—but from a distance. He had left no stone unturned for their comfort—but refused to see them in person except when it was unavoidable.

Forth thought, we played a dangerous game. Jay Allison had made his own adjustment to life, and we disturbed that balance. Have we wrecked the man? He's expendable, but damn it, what a loss! He asked, "Well, why *didn't* you fly back to Carthon with them? Kendricks went along, you know. He expected you to go until the last minute."

Jay did not answer. He had avoided Kendricks, the only witness to his duality. In all his nightmare brooding, the avoidance of anyone who had known him as Jason became a mania. Once, meeting Rafe Scott on the lower floor of the HQ, he had turned frantically and plunged like a madman through halls and corridors, to avoid coming face to face with the man, finally running up four flights of stairs and taking shelter in his rooms, with the pounding heart and bursting veins of a hunted criminal. At last he said, "If you've called me down here to read me the riot act about not wanting to make another trip into the Hellers—!"

"No, no," Forth said equably, "there's a visitor coming. Regis Hastur sent word he wants to see you. In case you don't remember him, he was on Project Jason—"

"I remember," Jay said grimly. It was nearly his one clear memory—the

nightmare of the ledge, his slashed hand, the shameful naked body of the Darkovan woman, and—blurring these things, the too-handsome Darkovan aristocrat who had banished him for Jason again. "He's a better psychiatrist than you are, Forth. He changed me into Jason in the flicker of an eyelash, and it took you half a dozen hypnotic sessions."

"I've heard about the psi powers of the Hasturs," Forth said, "but I've never been lucky enough to meet one in person. Tell me about it. What did he do?"

Jay made a tight movement of exasperation, too controlled for a shrug. "Ask him, why don't you. Look, Forth, I don't much care to see him. I didn't do it for Darkover; I did it because it was my job. I'd prefer to forget the whole thing. Why don't you talk to him?"

"I rather had the idea that he wanted to see you personally. Jay, you did a tremendous thing, man! Damn it, why don't you strut a little? Be—be normal for once! Why, I'd be damned near bursting with pride if one of the Hasturs insisted on congratulating me personally!"

Jay's lip twitched, and his voice shook with controlled exasperation. "Maybe you would. I don't see it that way."

"Well, I'm afraid you'll have to. On Darkover nobody refuses when the Hasturs make a request—and certainly not a request as reasonable as this one." Forth sat down beside the desk. Jay struck the woodwork with a violent clenched fist and when he lowered his hand there was a tiny smear of blood along his knuckles. After a minute he walked to the couch and sat down, very straight and stiff, saying nothing. Neither of the men spoke again until Forth started at the sound of a buzzer, drew the mouthpiece toward him, and said, "Tell him we are honored—you know the routine for dignitaries, and send him up here."

Jay twisted his fingers together and ran his thumb, in a new gesture, over the ridge of scar tissue along the knuckles. Forth was aware of an entirely new quality in the silence, and started to speak to break it, but before he could do so, the office door slid open on its silent beam, and Regis Hastur stood there.

Forth rose courteously and Jay got to his feet like a mechanical doll jerked on strings. The young Darkovan ruler smiled engagingly at him:

"Don't bother, this visit is informal; that's the reason I came here rather

than inviting you both to the Tower. Dr. Forth? It is a pleasure to meet you again, sir. I hope that our gratitude to you will soon take a more tangible form. There has not been a single death from the trailmen's fever since you made the serum available."

Jay, motionless, saw bitterly that the old man had succumbed to the youngster's deliberate charm. The chubby, wrinkled old face seamed up in a pleased smile as Forth said, "The gifts sent to the trailmen in your name, Lord Hastur, were greatly welcomed."

"Do you think that any of us will ever forget what they have done?" Regis replied. He turned toward the window and smiled rather tentatively at the man who stood there; motionless since his first conventional gesture of politeness:

"Dr. Allison, do you remember me at all?"

"I remember you," Jay Allison said sullenly.

His voice hung heavy in the room, its sound a miasma in his ears. All his sleepless, nightmare-charged brooding, all his bottled hate for Darkover and the memories he had tried to bury, erupted into overwrought bitterness against this too-ingratiating youngster who was a demigod on this world and who had humiliated him, repudiated him for the hated Jason ... for Jay, Regis had suddenly become the symbol of a world that hated him, forced him into a false mold.

A black and rushing wind seemed to blur the room. He said hoarsely, "I remember you all right," and took one savage, hurtling step.

The weight of the unexpected blow spun Regis around, and the next moment Jay Allison, who had never touched another human being except with the remote hands of healing, closed steely, murderous hands around Regis' throat. The world thinned out into a crimson rage. There were shouting and sudden noises, and a red-hot explosion in his brain ...

"You'd better drink this," Forth remarked, and I realized I was turning a paper cup in my hands. Forth sat down, a little weakly, as I raised it to my lips and sipped. Regis took his hand away from his throat and said huskily, "I could use some of that, Doctor."

I put the whiskey down. "You'll do better with water until your throat muscles are healed," I said swiftly, and went to fill a throwaway cup for him,

without thinking. Handing it to him. I stopped in sudden dismay and my hand shook, spilling a few drops. I said hoarsely, swallowing, "—but drink it, anyway —"

Regis got a few drops down, painfully, and said, "My own fault. The moment I saw—Jay Allison—I knew he was a madman. I'd have stopped him sooner only he took me by surprise."

"But—you say *him*—I'm Jay Allison," I said, and then my knees went weak and I sat down. "What in hell is this? I'm not Jay—but I'm not Jason, either—"

I could remember my entire life, but the focus had shifted. I still felt the old love, the old nostalgia for the trailmen; but I also knew, with a sure sense of identity, that I was Doctor Jason Allison, Jr., who had abandoned mountain climbing and become a specialist in Darkovan parasitology. Not Jay who had rejected his world; not Jason who had been rejected by it. But then who?

Regis said quietly, "I've seen you before—once. When you knelt to the Old One of the trailmen." With a whimsical smile he said, "As an ignorant superstitious Darkovan, I'd say that you were a man who'd balanced his god and daemon for once."

I looked helplessly at the young Hastur. A few seconds ago my hands had been at his throat. Jay or Jason, maddened by self-hate and jealousy, could disclaim responsibility for the other's acts.

I couldn't.

Regis said, "We could take the easy way out, and arrange it so we'd never have to see each other again. Or we could do it the hard way." He extended his hand, and after a minute, I understood, and we shook hands briefly, like strangers who have just met. He added, "Your work with the trailmen is finished, but We Hasturs committed ourselves to teach some of the Terrans our science—matrix mechanics. Dr. Allison—Jason—you know Darkover, and I think we could work with you. Further, you know something about slipping mental gears. I meant to ask; would you care to be one of them? You'd be ideal."

I looked out the window at the distant mountains. This work—this would be something which would satisfy both halves of myself. The irresistible force, the immovable object—and no ghosts wandering in my brain. "I'll do it," I told Regis. And then, deliberately, I turned my back on him and went up to the

quarters, now deserted, which we had readied for the trailmen. With my new doubled—or complete—memories, another ghost had roused up in my brain, and I remembered a woman who had appeared vaguely in Jay Allison's orbit, unnoticed, working with the trailmen, tolerated because she could speak their language. I opened the door, searched briefly through the rooms, and shouted, "Kyla!" and she came. Running. Disheveled. Mine.

At the last moment, she drew back a little from my arms and whispered, "You're Jason—but you're something more. Different ..."

"I don't know who I am," I said quietly, "but I'm me. Maybe for the first time. Want to help me find out just who that is?"

I put my arm around her, trying to find a path between memory and tomorrow. All my life, I had walked a strange road toward an unknown horizon. Now, reaching my horizon, I found it marked only the rim of an unknown country.

Kyla and I would explore it together.